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LAKE MERRITT BART STATION REDEVELOPMENT PROJECT

CEQA Checklist

1. General Project Information

1.1 Project Title

Lake Merritt BART Station Redevelopment Project

1.2 Lead Agency Name and Address

City of Oakland
Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612

1.3 Project Case File Number

PLN20-038

1.4 Contact Person and Phone Number

Dara O'Byrne, City Planner
Bureau of Planning
dobyrne@oaklandca.gov
(510) 238-6983

1.5 Project Location

Block 1:
51 9th Street
Assessor's Parcel No. 001-0169-001-00

Block 2:
107 8th Street
Assessor's Parcel No. 001-0171-002-00

1.6 Project Applicant's Name and Address

East Bay Asian Local Development Corporation [EBALDC]/Strada Investment Joint Venture
101 Mission St, Suite 420
San Francisco, CA 94105

1.7 Existing General Plan Designations

Central Business District (CBD)

1.8 Existing Zoning

Block 1: Lake Merritt Station Area District Pedestrian Commercial Zone (D-LM-2); Lake Merritt Station Area District Height Area 275 (LM-275)

Block 2: Lake Merritt Station Area District Pedestrian Commercial Zone (D-LM-2) and Lake Merritt Station Area District Flex Zone (D-LM-4); Lake Merritt Station Area District Height Area 275 (LM-275)

1.9 Requested Permits

Regular Design Review; Preliminary Development Plan for a Planned Unit Development (PUD) permit, Vesting Tentative Tract Map, Major Conditional Use Permit, Variance for Off-Street Loading, Tree Removal Permit.

2. Executive Summary

The proposed Lake Merritt San Francisco Bay Area Rapid Transit (BART) Station Redevelopment Project ("Project") would include two phases and four buildings providing a high-density mix of market-rate and affordable residential units (moderate-, lower-, and very low-income); office and community space; ground-floor retail, and restaurant; a child care center; a new public open space; and public space improvements. Overall, the Project would consist of two high-rise and two mid-rise buildings, 557 residential rental units, 495,333 square feet of office space, 6,200 square feet of day care, and 18,492 square feet of ground-floor commercial space. The project site consists of two diagonally positioned (kittycorner) blocks owned by BART: Block 1, comprised of one parcel, is located at 51 9th Street, bounded by Fallon, 8th, Oak, and 9th Streets (Assessor's Parcel Number [APN] 001-0169-001-00); and Block 2, also comprised of one parcel, is located at 107 8th Street, bounded by Oak, 7th, Madison, and 8th Streets (APN 001-0171-002-00). The Project Applicant (East Bay Asian Local Development Corporation [EBALDC]/Strada Investment Joint Venture) is seeking a Planned Unit Development (PUD) for the master plan (both phases), and will also require approvals from BART, the owner of the property. The Project would provide up to 408 vehicle parking spaces including 4 car share parking spaces, and approximately 250 bicycle parking spaces. The Project would be constructed in two phases with Block 1 construction and completion followed by Block 2 construction and completion.

Both blocks are located within the Lake Merritt Station Area Plan ("LMSAP"). The City certified an Environmental Impact Report ("EIR") for the LMSAP in November 2014, pursuant to the California Environmental Quality Act ("CEQA").[1] The 2014 LMSAP EIR analyzed the environmental impacts of adoption and implementation of the LMSAP. The Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR, providing the basis for use of an Addendum. Separate and independently, qualified planning level documents that can be used as a basis to provide CEQA clearance of the Lake Merritt BART Station Redevelopment Project under specific CEQA provisions include Oakland's 1998 General Plan Land Use and Transportation Element EIR ("1998 LUTE EIR"), the 2010 General Plan Housing Element Update EIR and its 2014 Addendum, and the 2011 Central District Urban Renewal Plan Amendments EIR (or "Redevelopment Plan Amendments EIR"). These are referred to collectively throughout this document as "the Previous CEQA Documents" or "Prior EIRs."

1 Lake Merritt Station Area Plan Final EIR, Certified November 18, 2014. SCH No. 2012032012. Oakland Case Nos. ZS11225, ER1100-17, GP13287, ZT13288, RZ13289.

3. Background

3.1 Planning Context

The project site is located within the Lake Merritt Station Area Plan (“LMSAP”), for which the City of Oakland certified an Environmental Impact Report (“EIR”) in November 2014, pursuant to the California Environmental Quality Act (“CEQA”).

The LMSAP encompasses approximately 286 acres of area within a half-mile radius of the Lake Merritt BART Station. Its goal is to guide actions to improve the area's vitality and to accommodate and promote future growth over a 25-year period. The 2014 LMSAP EIR analyzed the LMSAP “Development Program,” which was the assumed future development for the Plan with up to 4,900 new housing units, 4,100 new jobs, 404,000 square feet of retail use, and l.3 million square feet of office uses. The 2014 LMSAP EIR also presented detailed potential development assumptions for certain “Opportunity Sites,” which are properties considered “most likely to redevelop.” The portion of the project site on the Full Block parcel is included in the LMSAP Development Program and the level of development currently proposed for the site is within the broader development assumptions analyzed in the EIR. Specifically, the 2014 LMSAP EIR allows for flexibility in future development in terms of the precise mix of newly developed land uses and their location within the Planning Area. Further, as long as the actual plan area buildout stays within the impact envelope analyzed in the 2014 LMSAP EIR, individual development projects need not adhere to the specific site-by-site assumptions in the Development Program.

3.2 CEQA Context

The following describes the program EIRs including a brief description of the program analyzed and a summary of the environmental effects and EIR conclusions. The summary below presents the conclusions at the time each EIR was certified. Since certification of these EIRs, the CEQA statutes have been amended and the required assessment of impacts has changed for various topic areas including aesthetics and traffic. Revisions to the CEQA statutes and/or updates to the City’s significance thresholds relevant to the analysis of the Project are described within each topic area in Section 7.

These program EIRs constitute the previous CEQA documents considered in this CEQA Checklist. Each of the following documents is hereby incorporated by reference and can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612, and on the City of Oakland Planning and Building Department website at https://www.oaklandca.gov/resources/environmental-review-docs.

3.2.1 2014 LMSAP EIR

The 2014 LMSAP EIR anticipated that the environmental review of specific development projects assumed as part of the LMSAP would be streamlined in accordance with CEQA. This CEQA Checklist is an addendum to the 2014 LMSAP EIR which provides the planning level analysis evaluating the potential significant environmental impacts that could result from the reasonably foreseeable maximum development under the LMSAP. Specifically, it evaluates the physical and land use changes from potential development that could occur with adoption and implementation of the LMSAP. As specified in CEQA Guidelines Section 15183 and 15168, the 2014 LMSAP EIR is appropriate for a specific plan since the degree of specificity in an EIR corresponds to the degree of specificity in the underlying activity described in the EIR. Preparation of a planning-level document in the Plan area simplifies the task of preparing subsequent project-level environmental documents for future projects under the LMSAP for which the details are currently unknown. As such, the 2014 LMSAP EIR presents an analysis of the environmental impacts of adoption and implementation of the LMSAP. Specifically, it evaluates the physical and land use changes from potential development that could occur with adoption and implementation of the LMSAP. Further, where feasible, and where an adequate level of detail is available such that the potential environmental effects may be understood and analyzed, the 2014 LMSAP EIR provides a project-level analysis to eliminate or minimize the need for subsequent CEQA review of projects that could occur under the LMSAP.

Environmental Effects Summary – 2014 LMSAP EIR

The 2014 LMSAP EIR (including its Initial Study) determined that development consistent with the LMSAP would result in the following impacts that would be **reduced to a less-than-significant level with the implementation of mitigation measures and/or standard conditions of approval** (described in Section 3.3): aesthetics (degradation of existing visual character, adversely affect scenic vistas, new light or glare); air quality (conflicts with the Bay Area Clean Air Plan (CAP)); cultural resources (archaeological, human remains, paleontological); greenhouse gases and global climate change (generation of greenhouse gas emissions); hazards and hazardous materials; geology and soils; hydrology and water quality (flooding, runoff in excess of existing capacity, groundwater depletion); noise (use and density incompatibilities, interior noise levels, violation of noise ordinance); utilities and service systems (impacts on existing stormwater, solid waste, and wastewater facilities); biological resources (fish or wildlife species, riparian habitat, wetlands, trees); public services (except as noted below as significant)[2]; and transportation/circulation (intersection operations Downtown).

Less-than-significant impacts were identified for the following resources in the 2014 LMSAP EIR and Initial Study: land use (adjacent land uses and land use policy); parks and recreation (expansion of existing park facilities on environment and increase demand for facilities); aesthetics (shadow, conflict with existing policies); noise (in excess of applicable standards); and hydrology and water quality (exposure to loss or risk of death). **No impacts** were identified for agricultural or forestry resources, and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the 2014 LMSAP EIR: transportation/circulation (roadway segment operations); air quality (exposure of sensitive receptors to TACs, cumulative impacts); and cultural resources (changes to historic

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2 The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under *Public Services*.

resources). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's certification of the 2014 LMSAP EIR.

3.2.2 Land Use and Transportation Element EIR

The City certified the EIR for its General Plan Land Use and Transportation Element (LUTE) in 1998. The LUTE identifies policies for utilizing Oakland's land as change takes place and sets forth an action program to implement the land use policy through development controls and other strategies. The LUTE identifies five "Showcase Districts" targeted for continued growth; the project site is located within the "Downtown Showcase District" (Downtown), which is intended to promote a mixture of vibrant and unique districts with around-the-clock activity, continued expansion of job opportunities, and growing residential population. The 1998 LUTE EIR is designated a "Program EIR" under CEQA Guidelines Section 15183 and 15168. As such, subsequent activities under the LUTE are subject to requirements under CEQA Guidelines Section 15183 and 15168, which are described further in Section 6.

Applicable mitigation measures identified in the 1998 LUTE EIR are largely the same as those identified in the other EIRs prepared *after* the 1998 LUTE EIR, either as mitigation measures or newer standard conditions of approval, the latter of which are described below in Section 3.3.

Environmental Effects Summary – 1998 LUTE EIR

The 1998 LUTE EIR (including its Initial Study) determined that development consistent with the LUTE would result in the following impacts that would be **reduced to a less-than-significant level with the implementation of mitigation measures and/or standard conditions of approval** (described in Section 3.3): aesthetics (views, architectural compatibility and shadow only); air quality (construction dust [including PM10] and emissions Downtown, odors); cultural resources (except as noted below as less than significant); hazards and hazardous materials; land use (use and density incompatibilities); noise (use and density incompatibilities, including from transit/transportation improvements); population and housing (induced growth, policy consistency/clean air plan); public services (except as noted below as significant)[3]; and transportation/circulation (intersection operations Downtown).

Less-than-significant impacts were identified for the following resources in the 1998 LUTE EIR and Initial Study: aesthetics (scenic resources, light and glare); air quality (clean air plan consistency, roadway emissions in Downtown, energy use emissions, local/regional climate change); biological resources; cultural resources (historic context/settings, architectural compatibility); energy; geology and seismicity; hydrology and water quality; land use (conflicts in mixed use projects and near transit); noise (roadway noise Downtown and citywide, multifamily near transportation/transit improvements); population and housing (exceeding household projections, housing displacement from industrial encroachment); public services (water demand, wastewater flows, stormwater quality, parks services); and transportation/circulation (transit demand).

[3] The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under *Public Services*.

No impacts were identified for agricultural or forestry resources, and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the 1998 LUTE EIR: air quality (regional emissions, roadway emissions Downtown); noise (construction noise and vibration in Downtown); public services (fire safety); transportation/circulation (roadway segment operations); wind hazards, and policy consistency (clean air plan). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's certification of the 1998 LUTE EIR.

3.2.3 Oakland Housing Element Update EIR and Addendum

The City has twice amended its General Plan to adopt updates to its Housing Element. It certified a 2010 EIR for the 2007-2014 Housing Element, and a 2014 Addendum to the 2010 EIR for the 2015-2023 Housing Element. The General Plan identifies the City's current and projected housing needs, and sets goals, policies, and programs to address those needs, as specified by the state's *Regional Housing Needs Allocation* ("RHEA") process. The project site is specified as a "Housing Opportunity Site" in the 2015-2023 Housing Element, and thus the Lake Merritt BART Station Redevelopment Project would contribute to the total number of housing units needed in the City of Oakland to meet its RHNA target. Applicable mitigation measures and SCAs identified in the 2014 Addendum to the 2010 EIR are considered in the analysis of the residential components of the Lake Merritt BART Station Redevelopment Project in this document, and are largely the same as those identified in the 2011 Redevelopment Plan Amendments EIR. The 2010 Housing Element Update EIR was designated a "Program EIR" under CEQA Guidelines Sections 15183 and 15183.3. As such, subsequent activities under the Housing Element that involve housing, are subject to requirements under each of the aforementioned CEQA Sections, which are described further in Section 7.

Applicable mitigation measures and standard conditions of approval (also described in Section 7) identified in the 2010 Housing Element Update EIR are considered in the analysis in this document and are largely the same as those identified in the other EIR documents described in this section.

Environmental Effects Summary – 2010 Housing Element and its 2014 Addendum

The 2010 Housing Element Update EIR (including its Initial Study Checklist) and its 2014 Addendum determined that housing developed pursuant to the Housing Element, which would include the project site, would result in impacts that would be **reduced to a less-than-significant level with the implementation of mitigation measures and/or standard conditions of approval** (described below): aesthetics (visual character/quality and light/glare only); air quality (except as noted below); biological resources; cultural resources; geology and soils; greenhouse gas emissions; hazards and hazardous materials (except as noted below, and no impacts regarding airport/airstrip hazards and emergency routes); hydrology and water quality (except as noted below); noise; public services (police and fire only); and utilities and service systems (except as noted below).

Less-than-significant impacts were identified for the following resources in the Housing Element Update EIR and Addendum: hazards and hazardous materials (emergency plans and risk via transport/disposal); hydrology and water quality (flooding/flood flows, and inundation by seiche, tsunami or mudflow); land use (except no impact regarding community division or conservation plans); population and housing (except no impact regarding growth inducement); public services and recreation (except as noted above, and no impact regarding new recreation facilities); and utilities and service systems (landfill, solid waste, and energy capacity only, and no impact regarding energy standards). **No impacts** were identified for agricultural or forestry resources, and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the Housing Element Update EIR and Addendum: air quality (toxic air contaminant exposure) and traffic delays. Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

3.2.4 Central District Urban Renewal Plan Amendments EIR (2011 Renewal Plan Amendments EIR)

The project site is located within the Central District Urban Renewal Plan Area, which generally encompasses the entire Downtown: approximately 250 city blocks (828 acres) in an area generally bounded by Interstate 980 (I-980), Lake Merritt, 27th Street and Embarcadero West. The City Council adopted the Central District Urban Renewal Plan (Renewal Plan) for the Project Area in June 1969. The City prepared and certified an EIR for proposed amendments to the Renewal Plan in 2011, and amended or supplemented the Plan up to April 3, 2012.[4] The 2011 Renewal Plan Amendments EIR was designated a "Program EIR" under CEQA Guidelines Section 15180; as such, subsequent activities are subject to requirements set forth in CEQA Section 15168.

Applicable mitigation measures and standard conditions of approval (described in Section 3.3) identified in the 2011 Renewal Plan Amendments EIR are considered in the analysis in this document and are also largely the same as those identified in the other EIRs described in this Section 3.2.

Environmental Effects Summary – 2011 Renewal Plan Amendments EIR

The 2011 Renewal Plan Amendments EIR determined that development facilitated by the Proposed Amendments would result in the following impacts **that would be reduced to a less-than-significant level with the implementation of identified mitigation measures and/or standard conditions of approval** (described in Section 3.3): aesthetics (light/glare only); air quality (except as noted below as less than significant and significant); biological resources (except no impacts regarding wetlands or conservation plans); cultural resources (except as noted below as significant); geology and soils; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality (stormwater and 100-year flooding only); noise (exceeding standards – construction and operations only); traffic/circulation (safety and transit only); utilities and service systems (stormwater and solid waste only).

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4 The 2011 Renewal Plan Amendments EIR addressed two amendments. A 17th Amendment to the Redevelopment Plan to (1) extend the duration of the Plan from 2012 to 2022 and extend the time period that the then-Redevelopment Agency could receive tax increment funds from 2022 to 2032, as allowed by Senate Bill (SB) 211 (codified as Health and Safety Code Section 33333.10 et seq.); (2) increase the cap on the receipt of tax increment revenue to account for the proposed time extensions; and (3) renew the then-Redevelopment Agency's authority to use eminent domain in the Project Area. An 18th Amendment further extended the then-Redevelopment Plan time limit from 2022 to 2023 and extended the time period that the then-Redevelopment Agency could receive tax increment funds from 2032 to 2033, as allowed by Health and Safety Code Section 33331.5.

Less-than-significant impacts were identified for the following resources in the 2011 Renewal Plan Amendments EIR: aesthetics (except as noted above as less than significant with standard conditions of approval); air quality (clean air plan consistency); hydrology and water quality (except as noted above as less than significant with standard conditions of approval); land use and planning; population and housing; noise (roadway noise only); public services and recreation; traffic/circulation (air traffic and emergency access); and utilities and service systems (except as noted above as less than significant with standard conditions of approval).

No impacts were identified for agricultural or forestry resources, and mineral resources.

The 2011 Renewal Plan Amendments EIR determined that the Proposed Amendments combined with cumulative development would have significant unavoidable impacts on the following environmental resources: air quality (toxic air contaminant exposure and odors); cultural resources (historic); and traffic/circulation (roadway segment operations).[5] Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's certification of the 2011 Renewal Plan Amendments EIR.

3.2.5 Previous Mitigation Measures and Current Standard Conditions of Approval (SCAs)

The CEQA Checklist provided in Section 7 of this document evaluates the potential project-specific environmental effects of the Project, and evaluates whether such impacts were adequately covered by the 2014 LMSAP EIR (as well as the Prior EIRs previously described in Section 3.2) to allow the provisions afforded by Guidelines Sections 15183, 15162, 15164, and 15168 to apply. The analysis conducted incorporates by reference the information contained in each of the Previous CEQA Documents. The Project is legally required to incorporate and/or comply with the applicable requirements of the mitigation measures identified in the 2014 LMSAP EIR. Therefore, the mitigation measures are herein assumed to be included as part of the Project, including those that have been modified to reflect the City's current standard language and requirements, as discussed below.

3.2.6 SCA Application in General

The City established its *Standard Conditions of Approval and Uniformly Applied Development Standards* (SCAs) in 2008, and they have since been amended and revised several times.[6] The City's SCAs are incorporated into new and changed projects as conditions of approval regardless of a project's environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Oakland Protected Trees Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, California Building Code and Uniform Fire Code, among

[5] The 2011 Renewal Plan Amendments EIR also identified significant and unavoidable noise effects specifically associated with the potential development of a new baseball stadium at Victory Court, and multimodal safety at at-grade rail crossings, both near the Oakland Estuary. These effects would not pertain to the Project given the distance and presumably minimal contribution of multimodal trips affecting these impacts.

[6] A revised set of SCAs was recently published by the City of Oakland on December 16, 2020.

others), which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

3.2.7 SCA Application in this CEQA Checklist

Mitigation measures identified in the 2014 LMSAP EIR that would apply to the Project are listed in Attachment A to this document, which is incorporated by reference into this CEQA Checklist. In addition, SCAs identified in the 2014 LMSAP EIR, as updated, that would apply to the Project are listed in Attachment A to this document (see Section 3.2.5 above). Because the SCAs are mandatory City requirements, the impact analysis for the Project assumes that they will be imposed and implemented, which the Project Applicant has agreed to do or ensure as part of the Project. If this CEQA Checklist or its attachments inaccurately identifies or fails to list a mitigation measure or SCA, the applicability of that mitigation measure or SCA to the Project may still apply to the Project.

Most of the SCAs that are identified for the Project were also identified in the 2014 LMSAP EIR, and the 2011 Renewal Plan Amendments EIR; the 1998 LUTE EIR was developed prior to the City's application of SCAs. As discussed specifically in Attachment A to this document, since certification of the 2014 LMSAP EIR, the City of Oakland has revised its SCAs, and the most current SCAs are identified in this CEQA Checklist. All mitigation measures identified in the 2014 LMSAP EIR that would apply to the Project are also identified in Attachment A to this document.

4. Purpose and Determination

4.1 Purpose

This environmental review document is intended to assist the City to determine the appropriate CEQA documentation for the Project—either a CEQA addendum / exemption or an EIR.[7] It does not address every applicable CEQA topic or significance threshold but focuses on those most pertinent to the City's assessment of whether an addendum and/or exemption (in particular, Community Plan Consistency and Program EIR exemptions) is suitable for the Project.

The analysis in this environmental review document supports determinations that the Project, as separate and independent bases, qualifies for (1) CEQA Guidelines Section 15164 (Addendum to an EIR or Negative Declaration), (2) CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan or Zoning); and (3) streamlining and/or tiering provisions under CEQA Guidelines Section 15168 (Program EIRs) and 15180 (Redevelopment Projects), which provide that the 2011 Renewal Plan Amendments EIR can be used as a Program EIR.

4.2 Determination

The information presented in this environmental review document supports that the Project meets all requirements under CEQA Guidelines Section 15164, Section 15183, and 15168. As a result, no supplemental environmental review is required in accordance with Public Resources Code Section 21083.3 and Section 21166, and CEQA Guidelines Sections 15162 through 15164, as well as 15168.

[7] City staff considered and applied its discretion to dismiss the suitability of a Negative Declaration or Mitigated Negative Declaration for the Project.

5. Project Description

5.1 Project Setting

5.1.1 Project Location and Planning Context

The Lake Merritt San Francisco Bay Area Rapid Transit (BART) Station Redevelopment Project site (project site) consists of two diagonally positioned (kittycorner) blocks owned by BART located one block north of Interstate 880 (I-880) in the Chinatown neighborhood of the City (see **Figure 1**). Block 1 is located at 51 9th Street, bounded by Fallon, 8th, Oak, and 9th Streets. Block 1 is approximately 1.38 acres, and comprised of one parcel (Assessor's Parcel Number [APN] 001-0169-001-00). Block 2 is located at 107 8th Street, bounded by Oak, 7th, Madison, and 8th Streets. Block 2 is also approximately 1.38 acres, and comprised of one parcel (APN 001-0171-002-00).

The project site is located within the boundaries of the Lake Merritt Station Area Plan (LMSAP), which includes objectives and policies to foster new, high-quality, Transit-Oriented Development that supports and helps connect existing neighborhood assets and provides enhanced neighborhood amenities to the area surrounding the Lake Merritt BART Station. The 2014 LMSAP EIR identified the Lake Merritt BART Station as a "key asset" and Block 1 and Block 2 as opportunity sites, or those most likely to be redeveloped.[8]

The project site is located within the Central Business District (CBD) General Plan land use designation. The CBD designation is intended to encourage, support, and enhance the downtown area as a high-density, mixed-use urban center of regional importance, and a primary hub for business, communications, office, government, high technology, retail, entertainment, and transportation.

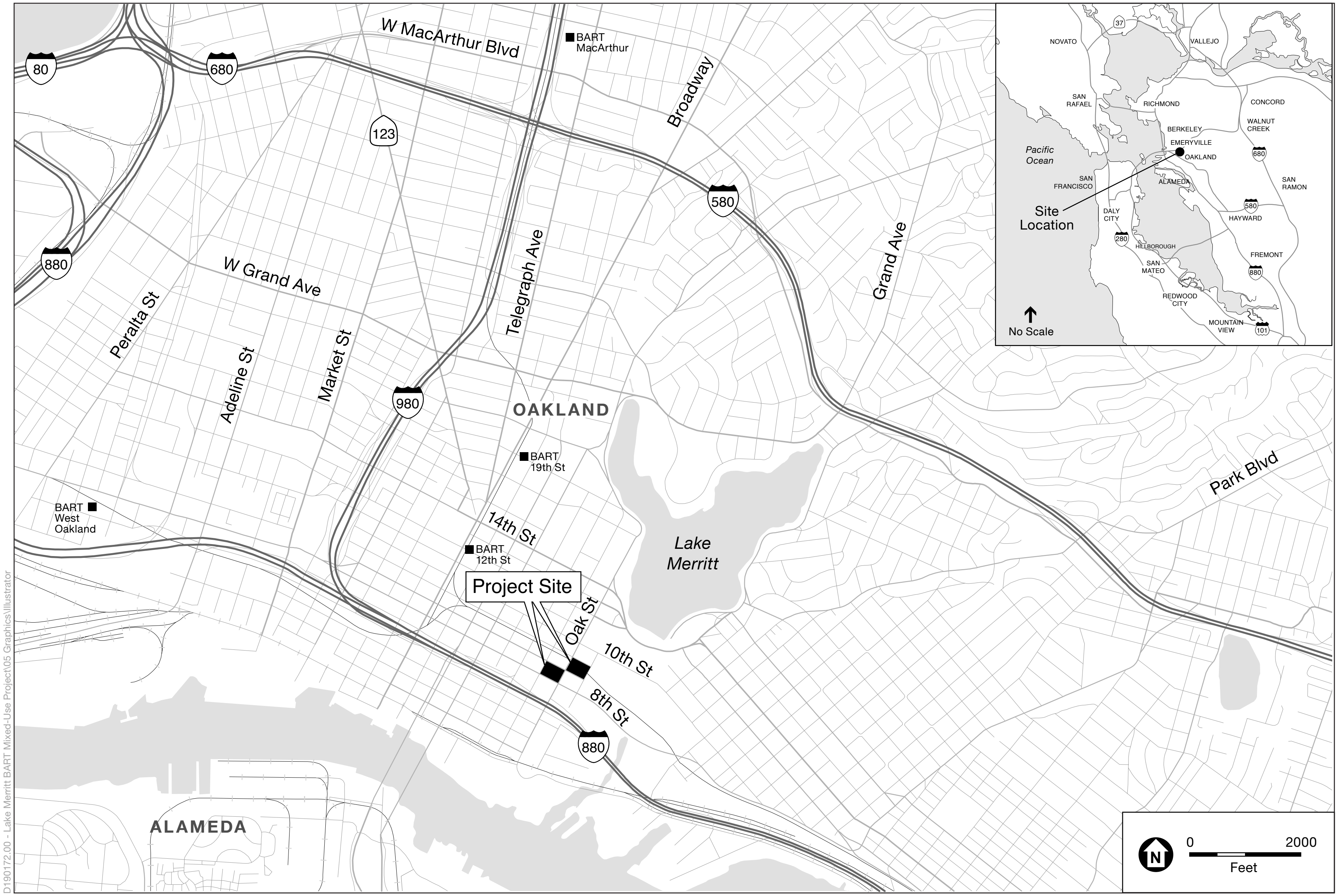
Block 1 is located within the Lake Merritt Station Area District Pedestrian Commercial Zone (D-LM-2). The intent of the D-LM-2 Zone is to create, maintain, and enhance areas of the Lake Merritt Station Area Plan District for ground-level, pedestrian-oriented, active storefront uses. Upper story spaces are intended to be available for a wide range of office and residential activities. Block 1 is in height/bulk/intensity area D-LM-275.

Block 2 is located partially within the D-LM-2 zone and partially within the Lake Merritt Station Area District Flex Zone (D-LM-4). The intent of the D-LM-4 Zone is to designate areas of the Lake Merritt Station Area Plan District appropriate for a wide range of Residential, Commercial, and compatible Light Industrial Activities. Block 2 is in height/bulk/intensity area D-LM-275

5.1.2 Existing Site Conditions

Existing uses on Block 1 include various public transportation uses supporting the Lake Merritt BART station and a surface parking lot. The surface parking lot serves BART passengers with approximately 100 spaces available by permit, 5 car-share spaces, 9 ADA spaces, 6 spaces for BART

[8] Lake Merritt Station Area Plan Final EIR, Certified November 18, 2014. SCH No. 2012032012. Oakland Case Nos. ZS11225, ER1100-17, GP13287, ZT13288, RZ13289.



SOURCE: ESA, 2020

Lake Merritt BART Mixed-Use Project

Figure 1
Project Location

ESA

staff and 12 dedicated motorcycle parking spaces. Two BART station entrances to the subsurface Lake Merritt BART Station are located on the northwest and southwest corners of the parcel. The northwestern BART station entrance contains stairs and an escalator leading down to the station. The southwestern BART station entrance contains stairs and an elevator down to the station. Bike racks are located adjacent to the BART station entrance on the northwest corner of the parcel.

A small plaza with bench seating and a skylight structure serving BART passengers is located between the two BART station entrances. An Alameda-Contra Costa County Transit District (AC Transit) bus stop and passenger waiting area with a sun shade that also serves the BART station is located along Oak Street. Bike lockers are located on Block 1 next to the bus stop within the plaza. Entry and exit to the parking lot is available on 8th and 9th Streets. Metered street parking surrounds Block 1 on 9th, Fallon, and 8th Streets. Two metered parking spaces are also located on Oak Street north of the bus and passenger loading zone. Block 1 contains 41 existing trees, 20 of which are street trees located within the sidewalk surrounding the parcel. The remaining trees are located around the parking lot and within the plaza. The underground Lake Merritt BART Station is located under Block 1 on the western end of the parcel, and Block 1 is bisected by the subsurface BART trackway.

Existing uses on Block 2 include a surface parking lot and the four-story, approximately 103,296 square foot Metro Center office building occupied by various businesses and BART Police Headquarters. The building is leased to the Asian Health Services Administrative Offices (leased through July 2023). Approximately 200 BART employees and 75 tenant employees currently occupy the Metro Center office building.[9] The surface parking lot has approximately 82 parking spaces serving the BART Police Department and BART passengers with spaces available for a daily fee. Entry and exit for the parking lot is located on 7th Street. Metered street parking surrounds Block 2 on 7th, Madison, 8th, and Oak Streets. A commercial loading zone is located on 8th Street along the building entrance. Block 2 contains 25 existing trees, 22 of which are street trees located within the sidewalk surrounding the parcel.

5.1.3 Surrounding Context

The area immediately surrounding the project site contains institutional, recreational, retail, office, light industrial, and single and multifamily residential land uses.

- The Lake Merritt BART Station Plaza, located next to the project site (west of Block 1 and north of Block 2), occupies the entire block bound by 9th, Oak, 8th, and Madison Streets. Entrances to the underground BART station are also located at the northeast and southeast corners of the plaza. The plaza also contains seating, 24 bike lockers, and ventilation and utility facilities for the underground BART station.
- Laney College, the largest of the four Peralta Community Colleges in Alameda County, is located east of Block 1 on approximately 60 acres of land, bounded by the Lake Merritt Channel, 7th, 10th, and Fallon Streets. The school serves a student population of over 14,000 students each semester, as well as more than 400 full-time and adjunct staff and employees.

[9] The number of employees on site was estimated prior to 2020 Shelter-in-place orders.

- Madison Square Park (810 Jackson Street), located on the block to the northwest of Block 2, is a 1.38-acre neighborhood park that contains lawns, a playground, blacktop play areas, and a labyrinth. Lake Merritt, Peralta Park, Lincoln Square Park and Recreation Center, and Chinese Garden Park are also located within 0.25 mile of the project site.
- The block to the north of Block 1 contains multi-family residential buildings ranging from two to three stories including the Madison Park Apartments, a surface parking lot, a one-story commercial/light industrial building, and the St. George Serbian Orthodox Church. One to five-story single and multifamily residential buildings, printing and electrical light industrial uses, surface parking lots, and a two-story office building are also located on the block to the northeast of Block 1.
- The block to the south of Block 1 and to the east of Block 2 contains single and multifamily residential buildings ranging from one to three stories, retail uses, and the Open Door Mission that provides community services to the area.
- The block to the south of Block 2 contains one to two-story single and multi-family residential buildings, a six multi-family residential building, and a commercial printing building. The Light of Buddha Temple is located next to the southeast of Block 2, along with one to two-story single and multifamily residential buildings, an auto repair shop, a motel, and a surface parking lot.
- Although the project site is not located within a designated historic district, it is across the street from the 7th Street/Harrison Square Residential District Area of Primary Importance (API) on multiple sides: 8th Street (south of Block 1), Oak Street (east of Block 2), 7th Street (south of Block 2), and Madison Street (west of Block 2). The API was determined to be an architecturally significant concentration of middle- and lower-middle-class housing constructed largely between 1889 and 1910. It contains single- and multiple-family residential buildings that are one and two stories in height and designed in a variety of architectural styles, although unified in scale, apparent density, use, and the relation of buildings to lots. Many of the residential buildings described below are Queen Anne and Colonial Revival style buildings and contributors to the API. These include the Lougee-Baumgartner House directly across 8th Street on the south side of Block 1, and the St. George Serbian Orthodox Church across 9th Street on the north side of Block 1, both of which are contributors as well as individually significant historical resources. (See Section 7.5, *Cultural Resources*, for a full description of the surrounding cultural resources.)

AC Transit provides bus lines and major transfer points along Oak, Madison, and 8th Streets, adjacent to the project site. Access to I-880 South is approximately one and one half blocks south of the project site (via Oak Street and 5th Street and Embarcadero), and access to I-880 North is approximately one block south of the project site (at 6th and Madison Streets).

5.2 Project Characteristics

5.2.1 Program

East Bay Asian Local Development Corporation (EBALDC)/Strada Investment Joint Venture (Project Applicant) proposes a master planned project on two sites surrounding the Lake Merritt BART station. This project is analyzed in this CEQA Checklist document and is referred to as the Lake Merritt BART Station Redevelopment Project (Project).

The Project would include two phases and four buildings providing a high-density mix of market-rate and affordable residential units (moderate-, lower-, and very low-income); office and community space; ground-floor retail, and restaurant; a child care center; new public open space; and on- site public space improvements. Overall, the Project would consist of two high-rise and two mid-rise buildings, 557 residential rental units, 495,333 square feet of office space, 6,200 square feet of day care, and 18,492 square feet of ground-floor commercial space (see **Figure 2**). The Project Applicant is seeking a Planned Unit Development (PUD) for the master plan (both phases), and will also require approvals from BART, the owner of the property.

Phase 1 is proposed on Block 1 which occupies the full block west of the BART station bounded by 8th, Oak, 9th, and Fallon Streets. Phase 1 would include two mixed use buildings separated by a publicly accessible paseo lined with neighborhood-scale food service. Phase 2 is proposed on Block 2 which occupies the full block south of the BART station bounded by 7th, Madison, 8th, and Oak Streets. On Block 2, the Project would include two mixed use buildings and demolition of the existing Metro Center Office building after existing leases expire.

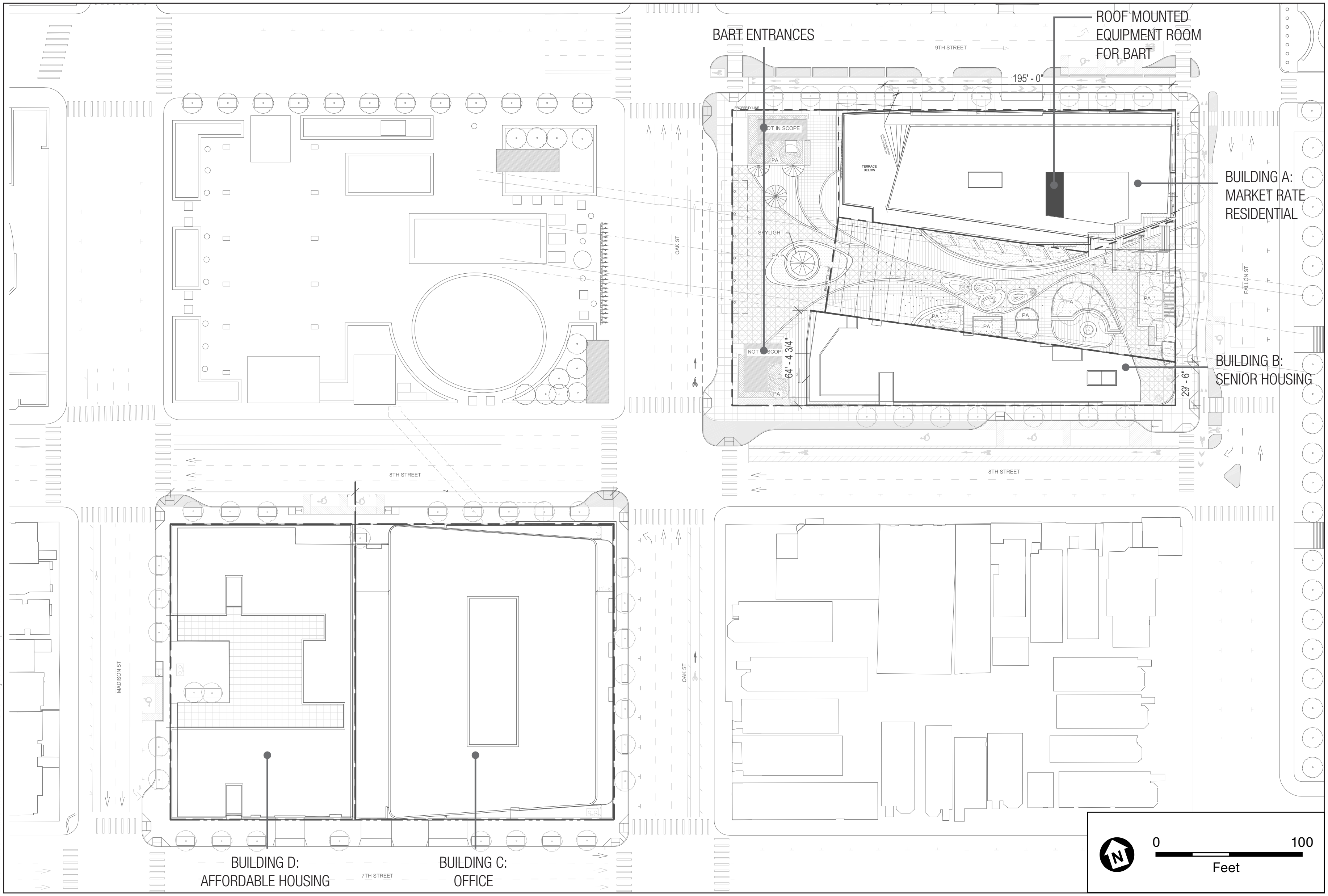
The Project characteristics are shown below in **Table 1**. **Table 2** details the proposed mix of affordable housing for the Project.

TABLE 1
PROJECT CHARACTERISTICS

	Block 1 (Phase 1)		**Block 2 (Phase 2)**		
	Building A	**Building B**	**Building C**	**Building D**	**Total**
Proposed Uses					
Residential	360 units	97 units	-	100 units	**557 units**
Commercial (Office)		-	495,333 sf	-	**495,333 sf**
Commercial Kitchen (Custom Manufacturing)		2,029 sf			**2,029 sf**
Limited-Service Restaurant and Café	4,500 sf	963 sf			**5,463 sf**
Commercial (Retail)			11,000 sf	-	**11,000 sf**
Commercial (Daycare)	-	-	-	6,200 sf	**6,200 sf**
Total	**330,555 sf**	**72,268 sf**	**506,333 sf**	**107,903 sf**	**1,017,059 sf**
Proposed Parking					
Vehicle Parking Spaces (Total)	105	-	254	49	**408**
Car Share Spaces (Included in Total)	3	-	1	-	**4**
Bicycle Parking Spaces	113	21	82	34	**250**
Open Space					
Public BART Plaza	11,610 sf		-		**11,610 sf**
Block 1 Paseo	12,609 sf	3,152 sf	-		**15,761 sf**
Publicly Accessible	305 sf	-		-	**2,309 sf**
Group Usable	7,990 sf	1,940 sf	-	6,800 sf	**16,730 sf**
Private Usable	12,900 sf	-		-	**12,900 sf**
Total	**33,804 sf**	**5,092 sf**	**-**	**6,800 sf**	**57,306 sf**
Building Characteristics					
Building Height	275 feet	83 feet	275 feet	83 feet	**83-275 feet**
Stories	28	7	19	7	**7-28**

NOTES: sf = square feet

SOURCE: EBALDC/Strada, 2020



D190172.00 - Lake Merritt BART Mixed-Use Project\05 Graphics\Illustrator

SOURCE: BKF, 2021

Lake Merritt BART Mixed-Use Project

Figure 2
Site Plan

ESA

TABLE 2
PROPOSED AFFORDABLE UNITS

	Block 1 (Phase 1)		Block 2 (Phase 2)			
	Building A	**Building B**	**Building C**	**Building D**	**Total**	**Percentage of Affordable/BMR**
Proposed Uses						
Total Affordable Units	**36 units**	**97 units**	**-**	**100 units**	**233 units**	**42%**

SOURCE: EBALDC/Strada, 2020

5.2.2 Building Characteristics

5.2.2.1 Building A

Building A would be an approximately 28-story, 275-foot tall, 330,555 (385,155 including parking) square foot mixed use residential, and retail building located on the north side of Block 1. Building A would contain a 4,500 square foot basement for back of house mechanical. The ground floor of Building A would contain a residential lobby, mailroom, bike room, bike workshop, package room, trash and utility space, and a ramp to parking starting on the second floor. The ground floor would also contain approximately 4,500 square feet of community-serving limited service restaurant space fronting the publicly accessible paseo running through the block and 9th Street (see **Figure 3**). A residential mezzanine level accessed from the ground floor residential lobby open to the lobby below would contain a leasing office and an additional residential lounge space. The second floor through fourth floor would contain approximately 105 parking spaces (including 2 car share stalls) comprised of 2 BART employee parking stalls and accessible parking spaces. Residential units would occupy the 5th through 28th floors. The 5th floor would have a 2,500 square foot residential amenity connected to a 2,570 square foot outdoor residential common use amenity on top of the western side of the podium. Building A would also include a 2,000 square foot top floor residential amenity room connected to a 920 square foot amenity terrace. In total, Building A would contain approximately 360 residential units with 108 studios, 180 one-bedroom, and 72 two-bedroom units. Approximately 324 units would be market-rate rental units and 36 units would be affordable units.

The underground BART tracks would run adjacent to Building A to the south. The building would utilize mat slab foundations with piles that would include setbacks from the underground BART tunnel and station structures. Piles for all mat slabs would be set back by approximately 10 feet from the face of the BART structures. Mat slabs that sit above the roof of the BART tunnel structure would be set back by approximately 2 to 7 feet. Mat slabs that sit below the roof of the tunnel structure would be set back by a minimum of 10 feet. **Figure 4** shows Building A sections and illustrates the BART structure setbacks.

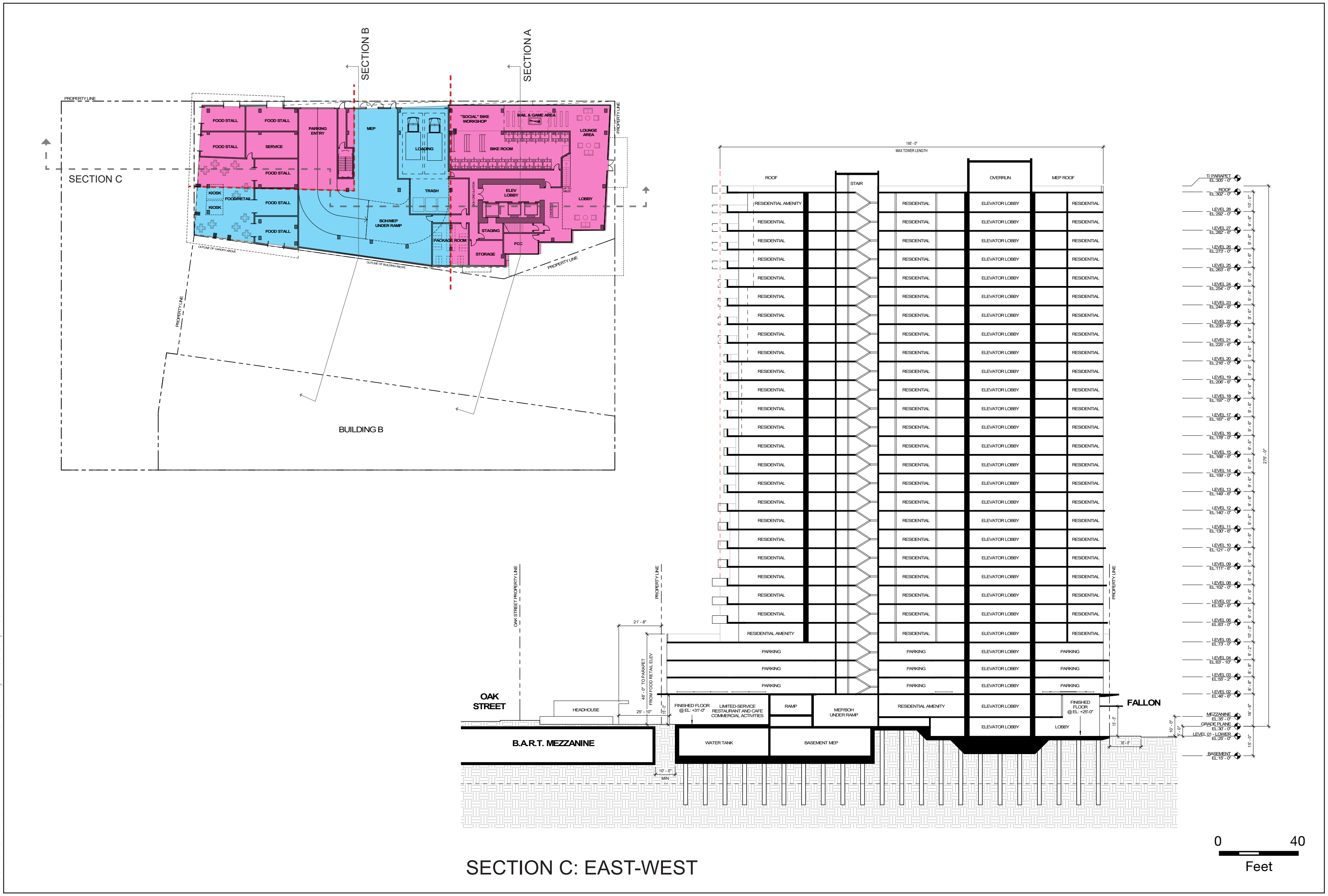
D190172.00 - Lake Merritt BART Mixed-Use Project\05 Graphics\Illustrator

SOURCE: BKF, 2020

Lake Merritt BART Mixed-Use Project

Figure 3
Block 1 Ground Floor Plan

ESA



D190172.00 - Lake Merritt BART Mixed-Use Project\05 Graphics\Illustrator

SOURCE: BKF, 2021

Lake Merritt BART Mixed-Use Project

Figure 4
Building A Sections

ESA

5.2.2.2 Building B

Building B would be an approximately 7-story, 83-foot tall, 72,268 (76,144 including parking) square foot mixed-use residential and retail building located on the south side of Block 1. The ground floor of Building B would contain a community room/lounge, service offices, restrooms, bike room, storage, trash and utility space. Limited service restaurants and a Commercial Kitchen would also be located on the ground floor fronting the publicly accessible paseo running through the block (see Figure 3). In total, there would be approximately 963 square feet of community-serving limited service restaurant and 2,209 square feet of Commercial Kitchen on the ground floor. Residential units for seniors would be located on the 2nd through 7th floors, consisting of a mix of one-, and two-bedroom units. The 7th floor would also contain a lounge and an outdoor rooftop deck. In total, Building B would contain approximately 97 senior residential units with 92 one-bedroom, and 5 two-bedroom units.

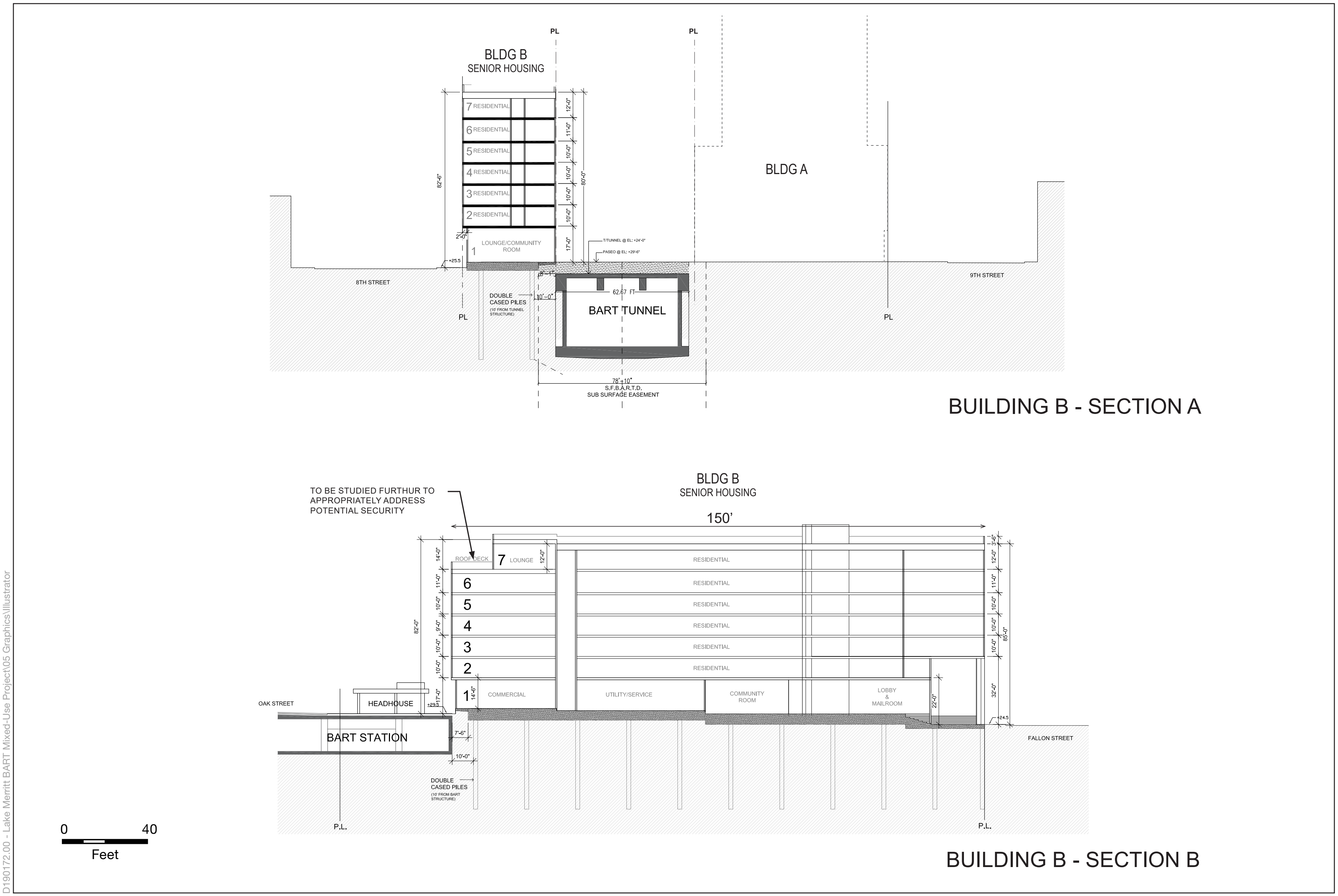
Building B would also be set back from the adjacent underground BART station and tunnel structures. Piles for the Building B foundation would be set back from the underground BART structures by a minimum of 10 feet. The Building B foundation would be set back from the BART structures from 1.5 feet above the structures to 8 feet below the structures. Building B sections and BART setbacks are illustrated in **Figure 5**.

5.2.2.3 Building C

Building C would be an approximately 19-story, 275-foot tall, 507,933 (528,100 including parking) square foot mixed use office and retail building located on the east side of Block 2. Building C would contain a basement parking garage with two levels and approximately 254 parking spaces and one car share space. The ground floor of Building C would contain approximately 11,000 square feet of retail use, an office lobby, trash and utility space, a loading dock, and a ramp down to the lower parking levels as shown in **Figure 6**. Approximately 495,333 square feet of office space would be provided on the 2nd through 19th floors. Block 2 Sections showing Building C heights are presented in **Figure 7**.

5.2.2.4 Building D

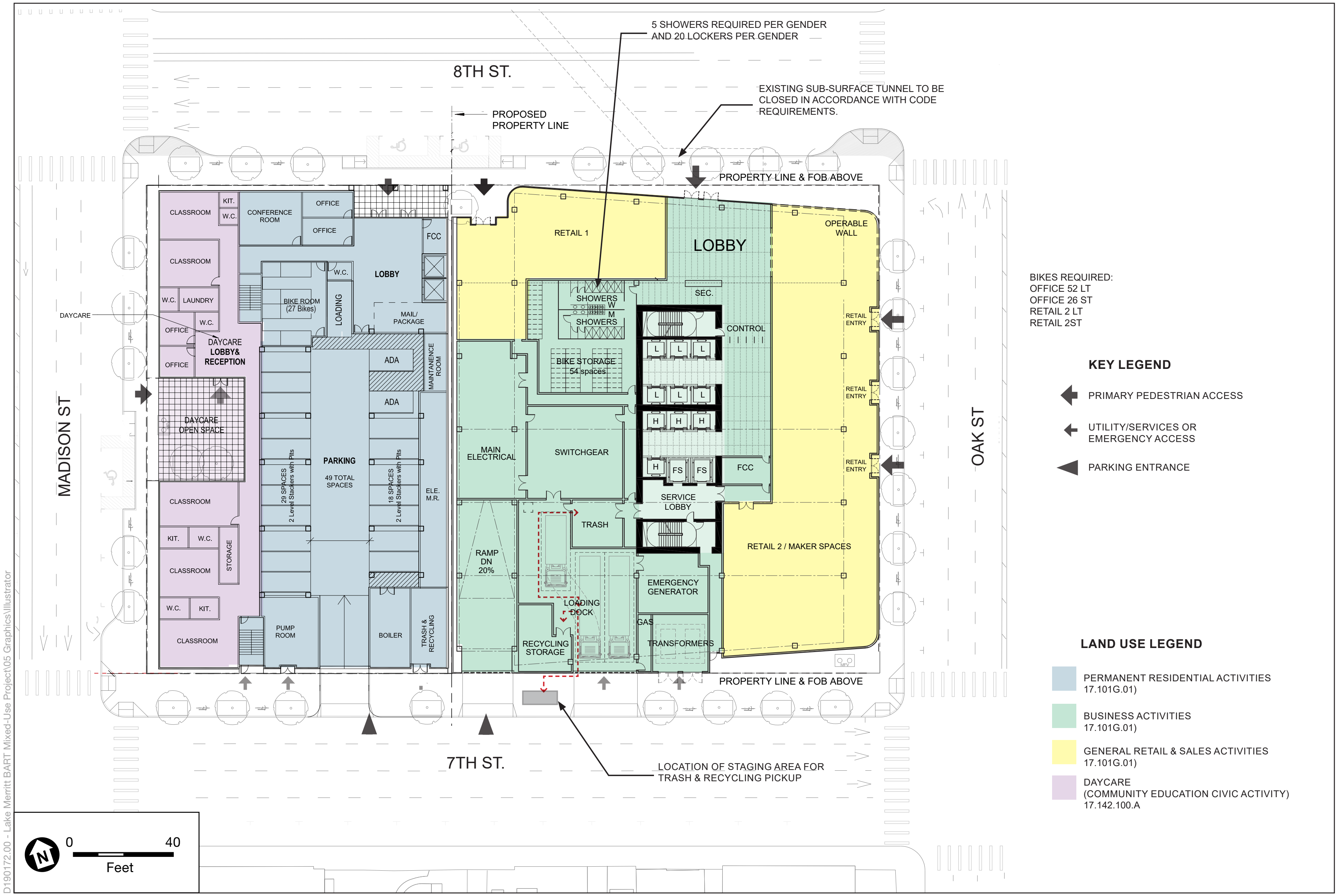
Building D would be an approximately 7-story, 83-foot tall, 107,903 (118,753 including parking) square foot mixed use affordable residential and day care building located on the west side of Block 2. The ground floor of Building D would contain 6,200 square feet for a daycare center including classroom, office, conference, and lobby/reception space (see Figure 6). An approximately 1,500 square foot open space area for the daycare center would be provided on the ground floor. The ground floor would also contain a residential lobby and mailroom, bike room, trash and utility space, and a parking garage with approximately 49 spaces comprised of three car stacker and accessible parking stalls. Approximately 100 affordable residential units located on the 2nd through 7th floors would be comprised of approximately 18 studios, 30 one-bedroom, 23 two-bedroom, and 29 three-bedroom units. The 2nd floor would also contain a podium courtyard, a community room, and amenity space. Building D sections and heights are illustrated in Figure 7.



SOURCE: BKF, 2020

Lake Merritt BART Mixed-Use Project

Figure 5
Building B Sections

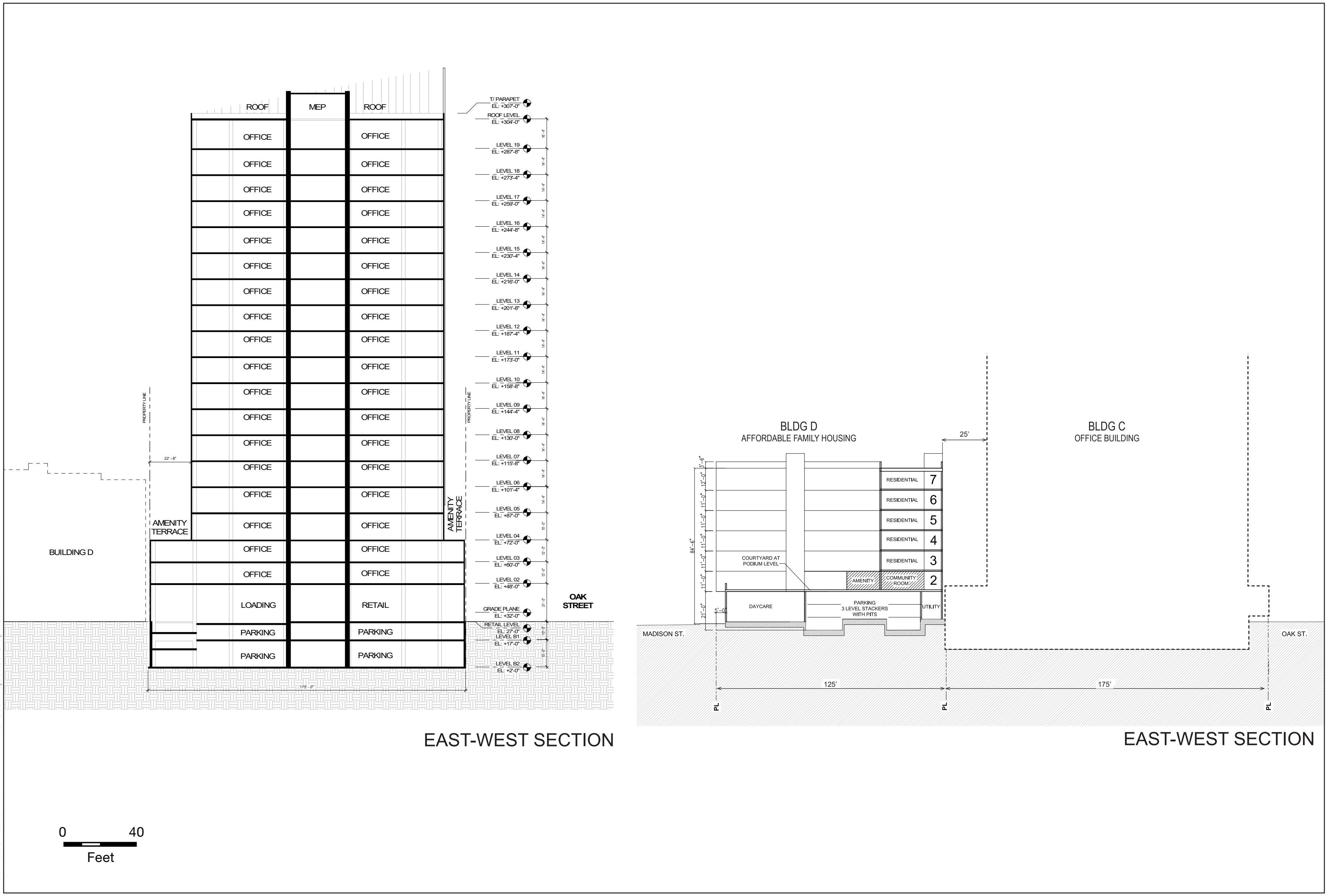


SOURCE: BKF, 2021

Lake Merritt BART Mixed-Use Project

Figure 6
Block 2 Ground Floor Plan

ESA



SOURCE: BKF, 2020

Figure 7
Block 2 Sections

5.2.3 Other Characteristics of the Project

5.2.3.1 Landscaping, Open Space, and Tree Removal

There are 66 existing trees located on the project site. To accommodate construction of the Project and the proposed landscape plan, all existing trees would be removed. The Project Applicant is seeking a tree permit in accordance with he City's Standard Conditions of Approval and the City's Tree Protection Ordinance regulating tree protection during construction and any tree removal on the project site. The Project would plant new street trees, as required, along street frontages. New trees would also be planted as a part of landscaping in the Block 1 paseo and BART plaza improvements.

Block 1 would provide approximately 27,676 square feet of publicly accessible open space that would run through Block 1 including the BART plaza, the paseo, and other publically accessible open spaces. Building A would provide approximately 3,490 square feet of outdoor group open space in the form of decks and a roof deck for use by building occupants. Approximately 4,500 square feet of indoor group open space would be provided via lounges and other building amenity spaces and approximately 12,900 square feet of private open space would be provided for unit occupants. Building B would also provide approximately 250 square feet of outdoor group open space and 1,690 square feet of indoor group open space. In total, Phase 1 on Block 1 would contain approximately 38,896 square feet of open space (50,506 square feet of open space including the BART plaza) (see **Figure 8**).

Block 2 would provide approximately 6,800 square feet of group open space. Building D would contain approximately 1,200 square feet of indoor group open space and 5,600 square feet of outdoor group open space for building residents via a podium courtyard and an open space area for the childcare center (see **Figure 9**).

The Project Applicant would be responsible for maintaining all public open space on the project site with the exception of the BART plaza, which would continue to be maintained by BART.

5.2.3.2 Parking and Circulation

Block 1 Parking and Circulation

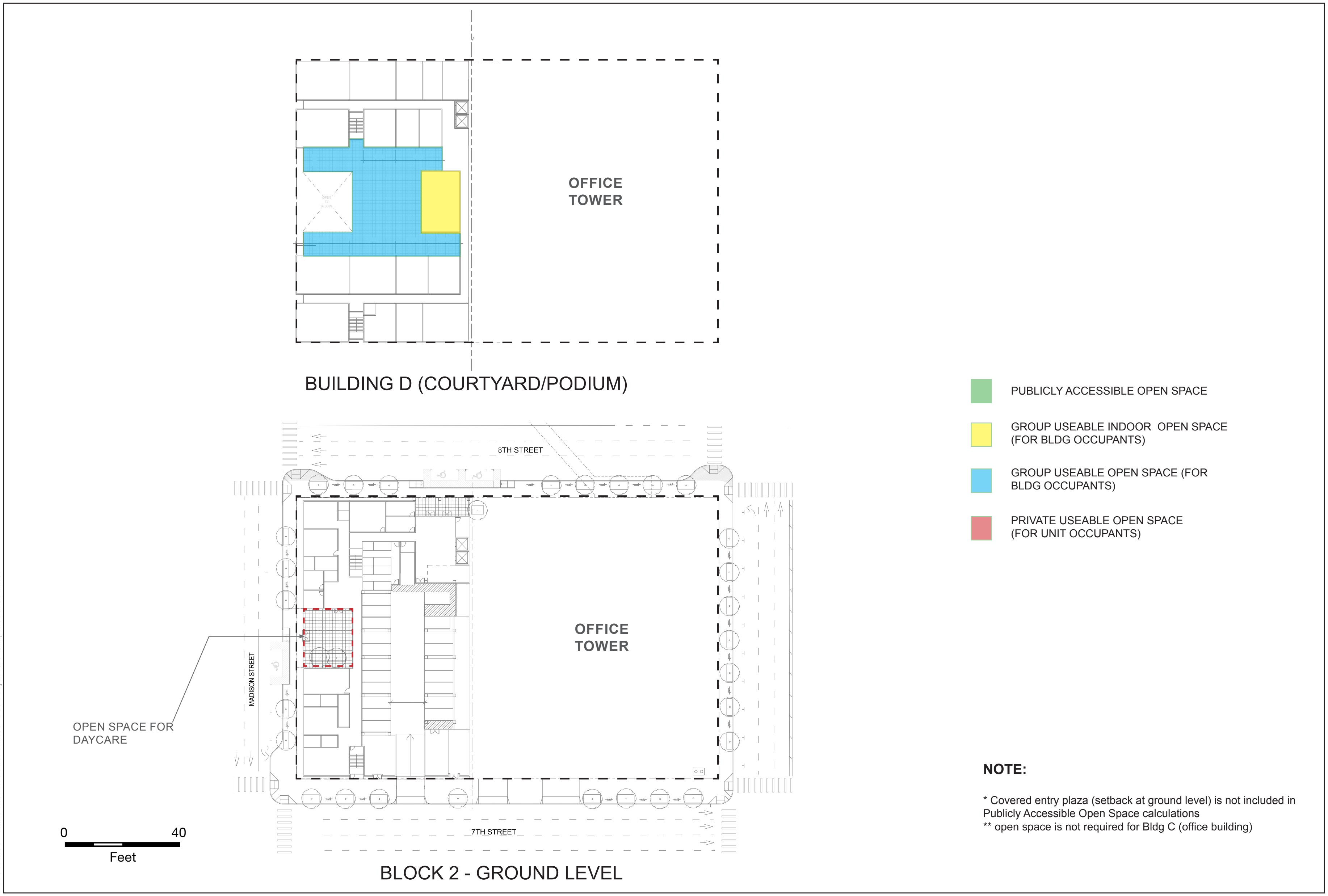
As noted previously, the Project would provide up to 105 vehicle parking spaces in a parking garage on the 2nd floor through 4th floor of Building A accessible via 9th Street. The bike room on the ground floor would include approximately 113 bicycle parking spaces comprised of 92 long-term and 21 short-term spaces. Building B would provide an additional 19 bicycle parking spaces comprised of 12 long-term and 7 short-term spaces.

The Project includes parking and circulation improvements in the public right-of-way surrounding Block 1 and within the BART plaza. The existing public street parking and loading would also be reconfigured for Block 1. As shown in **Figure 10**, passenger loading, and ADA passenger loading would be included on 8th and 9th Streets. Passenger loading and ADA street parking would also be provided on Fallon Street. A loading zone for AC Transit would be provided on Oak Street. A rolled curb would also be provided on Oak Street for light weight truck access for BART facility maintenance.

SOURCE: BKF, 2021

Lake Merritt BART Mixed-Use Project

Figure 8
Block 1 Open Space



NOTE:

* Covered entry plaza (setback at ground level) is not included in Publicly Accessible Open Space calculations
** open space is not required for Bldg C (office building)

SOURCE: BKF, 2021

Figure 9
Block 2 Open Space

D190172.00 - Lake Merritt BART Mixed-Use Project\05 Graphics\Illustrator

SOURCE: BKF, 2021

Lake Merritt BART Mixed-Use Project

Figure 10
Public Loading and Parking

ESA

Street bicycle parking racks would be provided along 8th and 9th Streets. The existing bicycle parking racks adjacent to the northwestern BART entrance would be upgraded to accommodate more bicycles (approximately 46 total) and the 24 existing BART plaza bicycle lockers would be replaced to accommodate 32 bicycles. Dockless scooter corrals would also be installed adjacent to each of the BART station entrances.

Block 2 Parking and Circulation

As discussed previously, Building C would include approximately 254 vehicle parking spaces and one car share space located in a basement level garage. Building C's parking garage and commercial loading dock would be accessible via 7th Street. The Project would also provide approximately 82 bicycle parking spaces for Building C with 54 long-term located in the building's parking garage and 28 short-term spaces located outside. Building D would include approximately 49 vehicle parking spaces in a ground floor garage utilizing a three car stacker design. Parking for Building D would be accessible through an entrance on 7th Street. Approximately 34 bicycle parking spaces would also be provided with 14 long-term located in the building's parking garage and seven short-term spaces located outside.

Existing public street parking and loading surrounding Block 2 would also be reconfigured as part of the Project. Street parking would be provided on Madison, and Oak Streets, and passenger loading for Block 2 would be provided on Madison and 8th Streets (see Figure 10). Street bicycle parking would surround the entire block.

Project Improvements in the Public Right of Way

Separate from the Project, transportation planning efforts are underway by BART including an Access Study for the Lake Merritt BART Station to ensure continued safe and efficient access to the BART station for all travel modes. This analysis is still in process, but Project improvements (including those contained within the adjacent sidewalks and public rights-of-way) reflect the Access Study preliminary recommendations. Changes to streets, sidewalks, bike lanes, and other streetscape elements are subject to further coordination with BART, the City of Oakland, and other agency and community stakeholders. On-site transportation improvements proposed by the Project Applicant are intended to complement surrounding transportation infrastructure improvements. The Project would include the following improvements in the public right-of-way:

- Dual-Directional Ramps – on each corner and intersections adjacent to the project; and as mid-block ramps at designated loading areas;
- High-Visibility Crosswalks on all legs of all intersections adjacent to the project;
- Concrete bulb-outs at intersection corners adjacent to the Project;
- Sidewalk improvements that generally provide a minimum pedestrian clear width of 8' (Block 1) and 5.5' (Block 2);
- Passenger loading (including ADA-designated passenger loading) and associated sidewalk, curb improvements, and paint striping;
- ADA-designated parking spaces;

- A two-way Class 4 separated bikeway, at the roadway level, on the south side of 9th Street between Oak and Fallon Streets;
- A one-way westbound Class 2b buffered bicycle lane on the north side of 8^{th} St
- A one-way southbound Class 4 separated bikeway on the west side of Fallon Street between 8th and 9th Streets; and
- Amenities such as street trees, short-term bicycle parking, and dockless scooter corrals along the Project frontage sidewalks that do not block the pedestrian through zones.

5.2.3.3 Utilities and Stormwater Management

Block 1 Utilities

Building A would tie into an existing water main in Fallon Street for potable and fire water service and would tie into an existing sewer main in 9th Street. Building B would tie into an existing water main in 8th Street for potable and fire water service and into an existing sewer main also located in 8th Street. New stormwater infrastructure would be constructed for Block 1 including storm drain laterals in 8th, Oak, and Fallon Streets connecting to existing storm drain mains. Associated storm drain inlets and manholes would also be constructed for the new stormwater infrastructure.

Block 2 Utilities

Building C would tie into an existing water main in Oak Street for potable and fire water service, and into an existing sewer main also located in Oak Street. Building D would tie into an existing water main in 8th Street for potable and fire water service, and would tie into an existing sewer main in Madison Street. Storm drain infrastructure would be constructed for Block 2 including new storm drain laterals in Oak and Madison Streets. Associated stormwater infrastructure would include manholes and filter vaults for the buildings. Additionally, various stormwater inlets would be constructed within the sidewalks surrounding Block 2.

Project Site Stormwater Management

Stormwater for the Project would be managed on-site to the extent feasible through detention tanks and pipes. The Project Applicant proposes a 10 percent peak flow reduction for the project site utilizing stormwater filter vaults and manholes.

5.2.4 Sustainability and Efficiency

The Project Applicant intends to meet GreenPoint Rated (Building A, B, D) and LEED (Building C) standards and comply with the City of Oakland Green Building ordinance and requirements. The Project would optimize the efficiency of its building envelopes, and would reduce domestic energy consumption through the use of efficient lighting and HVAC systems. The Project would meet the most recently implemented State Building Energy Efficiency Standards. The Project also would be required to comply with the City of Oakland Building Electrification Ordinance, which was adopted on December 15, 2020, and the City of Oakland Equitable Climate Action Plan (ECAP) and ECAP Checklist, which were adopted on July 15, 2020 and December 16, 2020, respectively.

5.2.5 Construction and Phasing

The Project would be constructed in two phases with Block 1 construction and completion followed by Block 2 construction. Buildings within each block would be constructed simultaneously. For Block 1, construction of Building A is estimated to commence 2024 and Building B in 2023. Block 1 is anticipated to be operational in 2026. Construction activities on Block 1 would consist of demolition of all existing structures on the block (except for the existing BART entrances, BART plaza sunshade, and BART station skylight which would be retained), grading and excavation for building foundations and below-grade construction, building construction, paving, and finishing interiors. Approximately 11,000 cubic yards of material are anticipated to be exported from Block 1 during construction.

Block 2 construction is anticipated to commence in 2026, with demolition of the entire site. Construction of Building D would commence a few months prior to construction of Building C. Building D is anticipated to be operational in 2026, and Building C is anticipated to be operation in 2028. Construction activities on Block 2 would consist of demolition of all existing structures on the block, grading and excavation for building foundations and below-grade construction, building construction, paving, and finishing interiors. Approximately 30,000 cubic yards of material is expected to be exported during Building C construction, and approximately 1,300 cubic yards of fill material is anticipated to be imported during Building D construction.

5.3 Discretionary Project Approvals Requested

The Project Applicant requests, and the Project would require, discretionary actions/approvals, as well as ministerial permits/approvals, as listed below.

5.3.1 Actions by the City of Oakland

Bureau of Planning – Regular Design Review, CEQA determination, Preliminary Development Plan for a Planned Unit Development (PUD) permit, Major Conditional Use Permit, Minor Variance, Tree Permit, and Vesting Tentative Tract Map. Final Development Plans will be needed for each building and for horizontal improvements, but these have not been requested yet.

- **Bureau of Building and Department of Transportation –** Demolition permit, grading permit, and other related on- and off-site work permits (e.g., obstruction, public right-of-way improvements, and tie backs) as well as encroachment permits.

5.3.2 Actions by Other Agencies

- **Bay Area Air Quality Management District (BAAQMD):** Issuance of permits for installation and operation of emergency generators.
- **BART:** Issuance of permits for improvements and construction activities on BART parcels.
- **Regional Water Quality Control Board, San Francisco Bay Region (RWQCB):** Acceptance of a Notice of Intent to obtain coverage under the General Construction Activity Storm Water Permit, and Notice of Termination after construction is complete. Granting of required clearances to confirm that all applicable standards, regulations, and conditions for all previous contamination at the site have been met.

6. Summary of Findings

An evaluation of the Project is provided in the CEQA Checklist in Section 7 that follows. This evaluation concludes that the Lake Merritt BART Station Redevelopment Project qualifies for an addendum as well as an exemption from additional environmental review. It is consistent with the development density and land use characteristics established by the City of Oakland General Plan, and any potential environmental impacts associated with its development were adequately analyzed and covered by the analysis in the 2014 LMSAP EIR, and in the applicable Prior EIRs: the 1998 LUTE EIR, the 2011 Redevelopment Plan Amendments EIR, and the 2010 General Plan Housing Element Update EIR and its 2014 Addendum.

The Project would be required to comply with the applicable mitigation measures and City of Oakland SCAs identified in the 2014 LMSAP EIR and presented in Attachment A to this document.[10] With implementation of the applicable mitigation measures and SCAs, the Project would not result in a substantial increase in the severity of previously identified significant impacts in the 2014 LMSAP EIR, the applicable Prior EIRs, or in any new significant impacts that were not previously identified in any of those Prior EIRs.

In accordance with California Public Resources Code Sections 21083.3, 21094.5, and 21166; and CEQA Guidelines Sections 15183, 15183.3, 15162, 15164, 15168, and 15180, and as set forth in the CEQA Checklist below, the Project qualifies for an addendum and one or more exemptions because the following findings can be made:

- **Addendum.** The 2014 LMSAP EIR analyzed the impacts of development within the LMSAP. The Project would not result in substantial changes or involve new information not already analyzed in the 2014 LMSAP EIR because the level of development now proposed for the site is within the broader development assumptions analyzed in the 2014 LMSAP EIR. The Project would not cause new significant impacts not previously identified in the 2014 LMSAP EIR, or result in a substantial increase in the severity of previously identified significant impacts. No new mitigation measures would be necessary to reduce significant impacts. No changes have occurred with respect to circumstances surrounding the LMSAP that would cause significant environmental impacts to which the Project would contribute considerably, and no new information has been put forward that shows that the Project would cause significant environmental impacts. Therefore, no supplemental environmental review is required in accordance with Public Resources Code Section 21166, and CEQA Guidelines Sections 15162 through 15164.
- **Community Plan Exemption.** The Project would not result in significant impacts that (1) are peculiar to the project or project site; (2) were not previously identified as significant project-level, cumulative, or offsite effects in the 2014 LMSAP EIR, or in the applicable Previous CEQA Documents: 1998 LUTE EIR, the 2011 Redevelopment Plan Amendments EIR, and for the housing components of the Project, the 2010 General Plan Housing Element Update EIR and its 2014 Addendum; or (3) were previously identified as significant effects, but—as a result of substantial new information not known at the time the 2014 LMSAP EIR was prepared, or when the Prior EIRs were certified—would increase in severity beyond that described in those EIRs. Therefore, the Project would meet the criteria to be exempt from further environmental

[10] Throughout this document, except where necessary for clarity, "2014 LMSAP EIR" encompasses the Initial Study, Draft EIR, and Final EIR for the Lake Merritt Station Area Plan.

review in accordance with Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183.

- **Other Applicable Previous CEQA Documents - Prior EIRs and Redevelopment Projects.** The analysis in the 2011 Redevelopment Plan Amendments EIR, the 2010 General Plan Housing Element Update EIR and its 2014 Addendum, and in this CEQA Analysis demonstrates that the Project would not result in substantial changes or involve new information that would warrant preparation of a subsequent EIR, per CEQA Guidelines Section 15162, because the level of development now proposed for the site is within the broader development assumptions analyzed in the EIR. The effects of the Project have been addressed in that EIR and no further environmental documents are required in accordance with CEQA Guidelines Sections CEQA Guidelines Sections 15168 and 15180.

Overall, based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR, as well as those of the 1998 LUTE EIR, the 2011 Redevelopment Plan Amendments EIR (or "Redevelopment Plan Amendments EIR"), and for the housing components of the Project, the 2010 General Plan Housing Element Update EIR and its 2014 Addendum—all of which are summarized in the CEQA Checklist in Section 7 of this document—the potential environmental impacts associated with the Lake Merritt BART Station Redevelopment Project have been adequately analyzed and covered in the 2014 LMSAP EIR and other Previous CEQA Documents. Therefore, no further review or analysis under CEQA is required.

Each of the above findings provides a separate and independent basis for CEQA compliance.

5/12/2021

Ed Manasse
Environmental Review Officer

Date

7. CEQA Checklist

7.1 Overview

The analysis in this CEQA Checklist provides a summary of the potential environmental impacts that may result from the Project. The analysis in this CEQA Checklist also summarizes the impacts and findings of the certified 2014 LMSAP EIR[11], as well as the Prior EIRs that covered the environmental effects of various projects encompassing the project site and that are still applicable for the Project. As previously indicated, the Prior EIRs are referred to collectively throughout this CEQA Analysis as the "Previous CEQA Documents" and include the 1998 Land Use and Transportation Element EIR, the 2011 Central District Urban Renewal Plan (or Redevelopment Plan) Amendments EIR, and for the housing components of the Project, the 2010 General Plan Housing Element Update EIR and its 2014 Addendum. Given the timespan between the preparation of these EIRs, there are variations in the specific environmental topics addressed and significance criteria; however, as discussed above in Section 3 and throughout this Checklist, the overall environmental effects identified in each are largely the same; any significant differences are noted.

Several SCAs would apply to the Lake Merritt BART Station Redevelopment Project because of the Project's characteristics; the SCAs are triggered because the City is considering discretionary actions for the Project.

All SCAs identified in the 2014 LMSAP EIR that would apply to the Lake Merritt BART Station Redevelopment Project are listed in Attachment A to this document, which is incorporated by reference into this CEQA Analysis. Because the SCAs are mandatory City requirements, the impact analysis for the Project assumes that they will be imposed and implemented, which the Project Applicant has agreed to do or ensure as part of the Project. If this CEQA Checklist or its attachments inaccurately identifies or fails to list a mitigation measure or SCA, the applicability of that mitigation measure or SCA to the Project is not affected.

Most of the SCAs that are identified for the Lake Merritt BART Station Redevelopment Project were also identified in the 2014 LMSAP EIR, the 2011 Redevelopment Plan Amendments EIR, and the 2010 Oakland Housing Element Update EIR and its 2014 Addendum; the 1998 LUTE EIR was developed prior to the City's application of SCAs. As discussed specifically in Attachment A to this document, since certification of the 2014 LMSAP EIR, the City of Oakland has revised its SCAs, and the most current SCAs are identified in this CEQA Analysis. All mitigation measures identified in the 2014 LMSAP EIR that would apply to the Project are also identified in Attachment A to this document.

This CEQA Checklist hereby incorporates by reference the discussion and analysis of all potential environmental impact topics as presented in the certified 2014 LMSAP EIR and the Previous CEQA Documents. This CEQA Checklist provides a determination of whether the Project would result in:

[11] Reference to the "2014 LMSAP EIR" or the "LMSAP EIR" encompasses the Initial Study, Draft EIR, and Final EIR for the Lake Merritt Station Area Plan.

- Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents;
- Substantial Increase in Severity of Previously Identified Significant Impact in the Previous CEQA Documents; or
- New Significant Impact.

Where the severity of the impacts of the Project would be the same as or less than the severity of the impacts described in the 2014 LMSAP EIR and the Previous CEQA Documents, the checkbox for "Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents" is checked.

If the checkbox for "Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents" or "New Significant Impact" were checked, there would be significant impacts that are:

- Peculiar to project or project site (per CEQA Guidelines Sections 15183 or 15183.3);
- Not identified in the previous 1998 LUTE EIR, 2010 General Plan Housing Element Update EIR and its 2014 Addendum, Redevelopment Plan Amendments EIR, or 2014 LMSAP EIR (per CEQA Guidelines Sections 15183 or 15183.3), including offsite and cumulative impacts (per CEQA Guidelines Section 15183);
- Due to substantial changes in the project (per CEQA Guidelines Section 15162 and 15168);
- Due to substantial changes in circumstances under which the project will be undertaken (per CEQA Guidelines Sections 15162 and 15168); or
- Due to substantial new information not known at the time the Previous CEQA Documents were certified (per CEQA Guidelines Sections 15162, 15168, 15183, or 15183.3).

None of the aforementioned conditions were found for the Project, as demonstrated throughout the following CEQA Checklist and in its supporting attachments (Attachments A through D) that specifically describe how the Project meets the criteria and standards specified in the CEQA Guidelines sections identified above.

7.2 Aesthetics, Shadow, and Wind

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Have a substantial adverse effect on a public scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;	☒	☐	☐
b. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986); or cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;	☒	☐	☐
c. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or, cast shadow on an historical resource, as defined by CEQA Guidelines Section 15064.5(a), such that the shadow would materially impair the resource's historic significance;	☒	☐	☐
d. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses; or	☒	☐	☐
e. Create winds that exceed 36 mph for more than one hour during daylight hours during the year. The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown.	☒	☐	☐

Since certification of the Previous CEQA Documents and 2014 LMSAP EIR, the CEQA statutes have been amended related to the assessment of impacts for aesthetics. Under CEQA Section 21099(d), "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment."[12] Accordingly, aesthetics is no longer considered in determining if a project has the potential to result in significant environmental effects for projects that meet all three of the following criteria:

- The project is in a transit priority area.[13]
- The project is on an infill site.[14]
- The project is residential, mixed-use residential, or an employment center.[15]

The Project meets all three of the above criteria because the Project (1) is in a transit priority area, and is situated above and adjacent to the Lake Merritt BART Station; (2) is on infill sites that have been previously developed within an urban area of Oakland; and (3) is a mixed-use residential project that would consist of two high-rise and two mid-rise buildings, 557 residential rental units, 495,333 square feet of office space, 6,200 square feet of day care and 18,492 square feet of ground-floor commercial space. Thus, as required by State law, this document does not consider aesthetics, including the aesthetic impacts of light and glare, in determining the significance of Project impacts under CEQA.[16] Nevertheless, the City recognizes that the public and decision-makers may be interested in information about the aesthetic effects of a Project; therefore, the information contained in this section related to aesthetics, light, and glare is provided solely for informational purposes, and is not used to determine the significance of environmental impacts pursuant to CEQA.

7.2.1 Previous CEQA Documents Findings

The Previous CEQA Documents analyzed scenic vistas, scenic resources, visual character, light and glare, and shadow, and found that the effects to these resources would be less than significant. The 2011 Renewal Plan Amendments EIR cited applicable SCAs that would ensure the less-than-significant visual quality effects. The 1998 LUTE EIR identified mitigation measures that are functionally equivalent to the SCAs to reduce certain potential effects to less-than-significant levels. The 1998 LUTE EIR also identified significant and unavoidable impacts regarding wind hazards.

7.2.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that with implementation of SCAs, impacts related to aesthetics would be less than significant with development occurring under the LMSAP. Individual projects would be subject to the design guidelines outlined in the LMSAP and would be required to comply with the height limits identified in the LMSAP. The LMSAP did not analyze potential wind

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[12] CEQA Section 21099(d)(1).

[13] CEQA Section 21099(a)(7) defines a "transit priority area" as an area within one-half mile of an existing or planned major transit stop. A "major transit stop" is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the a.m. and p.m. peak commute periods.

[14] CEQA Section 21099(a)(4) defines an "infill site" as either (1) a lot within an urban area that was previously developed; or (2) a vacant site where at least 75 percent of the site perimeter adjoins (or is separated by only an improved public right-of-way from) parcels that are developed with qualified urban uses.

[15] CEQA Section 21099(a)(1) defines an "employment center" as a project situated on property zoned for commercial uses with a floor area ratio of no less than 0.75 and located within a transit priority area.

[16] CEQA Appendix G includes light and glare under the topic of aesthetics. Therefore, light and glare, in addition to aesthetics, is not a CEQA consideration.

hazards, determining that such analysis shall be undertaken for specific projects, as applicable pursuant to the City of Oakland's thresholds of significance.

7.2.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Aesthetics (Criterion 2a)

The project site is located within the LMSAP area, which is characterized mostly by a highly urbanized mix of commercial, residential, and institutional land uses bordered to the south by an elevated freeway. Block 1 is currently occupied by single-story Lake Merritt BART station entrance structures and a surface parking lot. Block 2 is currently occupied by the 4-story Metro Center office building and a surface parking lot. The Project would construct four buildings on the project site ranging from 7-28 stories. The Project buildings heights would range between approximately 83-275 feet tall, resulting in a building height increase on the project site. As described in the 2014 LMSAP EIR, flat topography limits the availability of long-range views from within the LMSAP area, including from the project site. Views to the Oakland Estuary within the LMSAP area are currently blocked by I-880. Existing buildings across the street from the project site, including the 5-story Madison Park Apartments (100 9th Street) to the northwest of Block 1 and north of Block 2 and the 9-story tower at Laney College to the east of Block 1, currently block views to Lake Merritt from Madison Square Park. Therefore, the Project buildings would not obstruct views of existing scenic vistas or degrade the visual character or quality of the site and its surroundings. The Project would also contain setbacks and minimum base heights consistent with Height/Bulk/Intensity Area LM-275 with granting of a CUP, which would help to maintain views.

The Project also would not create a new source of substantial light or glare that would adversely affect day or night-time views in the area. The Project would utilize night-time lighting for operational and security purposes, and would result in similar levels of light and glare as is typical for mixed-use developments of this scale.

Although not considered significant under CEQA, the potential impacts of the Project regarding scenic vistas, scenic resources, visual character, and light and glare would be similar to, or less severe than, those identified in the 2014 LMSAP EIR and the Previous CEQA Documents considered in this analysis. Development of the Project also would be required to comply with City of Oakland SCAs AES-1, Trash and Blight Removal and AES-2, Graffiti Control related to maintenance and graffiti control; SCA AES-3, Landscape Plan related to landscaping and landscape maintenance; SCA AES-4 Lighting related to shielding for new installed exterior lighting to prevent unnecessary glare onto adjacent properties; and SCA UTIL-2, Underground Utilities related to utility undergrounding. Therefore, the visual impacts of the Project would remain less than significant.

Shadow (Criteria 2b through 2d)

The Project would construct four buildings on the project site ranging from 7-28 stories, with maximum heights of approximately 83-275 feet tall. Consistent with the City of Oakland methodology for shadow analyses, shadow diagrams were prepared for the Project (see Appendix A) to determine if the Project would cast adverse (prolonged) net new shadow on solar collectors, parks and public open spaces, or historic resources. Using a virtual 3D model, the Project was rendered in the existing shading conditions. Graphical depictions of the shadows that would be cast by the Project buildings at 9:00 a.m., 12:00 p.m., and 3:00 p.m. for the summer solstice (June 21st), spring/fall equinoxes (March 20th and September 22nd), and winter solstice (December 21st) were prepared. Graphics showing the extents of net new shading that would be generated by the Project as well as other future planned projects in the vicinity under the cumulative scenario are provided in Appendix A.

Solar Collectors

Five sites with rooftop solar collectors would be affected by net new shadow from the Project:

- **211 8th Street.** New shading would be cast on rooftop panels from early February through early March, and again from early October through early November starting at the beginning of the analysis period at 9:00 a.m. and would be present for up to approximately 10 minutes.
- **625 Madison Street.** New shading would be cast on rooftop panels during the summer months starting at the beginning of the analysis period at 9:00 a.m. and would be present for up to approximately 30 minutes.
- **162 9th Street**. New shading would be cast on the easternmost rooftop panel for a few days around the Winter Solstice (December 21) starting at the beginning of the analysis period at 9:00 a.m. and would be present for up to approximately 5 minutes.
- **100 9th Street (Madison Park Apartments)**. New shading would be cast on rooftop panels from early November through early February starting at the beginning of the analysis period at 9:00 a.m. and would be present for up to approximately two hours and 15 minutes then shaded again starting at approximately 1:30 p.m. for approximately one hour and 30 minutes (until the end of the analysis period at 3 p.m.).
- **71 10th Street**. New shading would be cast on rooftop panels from mid-September through late March starting as early as 11:30 a.m. and would be present for up to three hours and 30 minutes (until the end of the analysis period at 3 p.m.).

In general, solar collectors collect sun power during the period from two hours prior and two hours post solar noon—the time at which the sun is directly south. Due to daylight savings, this period ranges from approximately 10:00 AM to 3:00 PM throughout the year. Considering new Project shading on 211 8th Street, 625 Madison, and 162 9th Street would occur for short periods of time during the morning hours, prior to 10:00 AM, and over only a portion of the year; the presence of new Project shading would not substantially impair the functioning of the solar collectors or compromise their effectiveness.

New Project shading on 100 9th Street would occur for a period in the morning, and then again in the afternoon, and new Project shading on 71 10th Street would occur during the late morning through the afternoon. While this additional shading from the Project could reduce the ability of solar panels at these sites to collect sun power, any reduced amount of energy able to be produced at these addresses would not substantially impair the function of the buildings. The solar equipment consists of photovoltaic solar panels used to generate electricity (as opposed to heat or hot water) and any loss in energy can be made up for with additional power drawn from the local electricity provider, Pacific Gas and Electric (PG&E), with no impairment to the functionality of the building. Additionally, this shading would occur over only a portion of the year. Therefore, the Project shadow would not result in a substantial loss of power, income, or use from the collectors. No other solar collectors are within the Project shadow's path and, therefore, the Project would not cast shadow that would substantially impair the function of existing solar collectors in use on surrounding buildings and the impact would be less than significant.

Parks/Public Open Spaces

The Project would add new shading to Madison Square Park from mid-September through early March starting at the beginning of the analysis period at 9:00 a.m. and would be present for up to approximately three hours and 15 minutes. New Project shadow would most frequently shade the southern and eastern edges of the park, which contain park entry pathways, grassy areas, fixed benches, and adjoining children's play areas. Other park areas including grassy areas, multipurpose asphalt sports courts, and a shaded trellis seating/picnic area, would also be affected by new Project shadow but for shorter durations over fewer dates a year. While all of the park would be affected at certain times, including areas of potential heightened sensitivity, such as fixed seating areas and children's play areas, given the shadow would occur during mid-fall through the winter and would principally affect only morning hours which are typically lower park usage periods, the new Project shadow would not substantially impair the use of the park and would not be considered a significant impact. No other parks and/or public open spaces in the vicinity would be affected by net new shadow from the Project.

Historic Resources

The Project would add new shading on 23 buildings that are either landmark structures, historic resources, or eligible for historic resource status (with rating "C" or higher). The Project would also cast net new shadow across portions of three Historic Areas of Primary Importance (API), including the Lake Merritt API, the Real Estate Union Group API, and the 7th Street/Harrison Square Residential District API. In terms of historic resources, the City of Oakland's CEQA thresholds of significance state that a significant impact would occur if a project were to shade designated historic resources such that the new shadow would "materially impair" the resource's historic significance. While access to light is not typically an important characteristic of most historic buildings, it may be of historic places of worship where the light, specifically the light through stained-glass windows, contributes to its architectural historical significance or historic buildings with design elements that depend on the contrast between light and dark (e.g., open galleries, arcades, or recessed entries or balconies). The majority of 23 buildings with new shading do not possess features that contribute and/or justify their designation as an historic resource (such as stained-glass windows, historic atriums, etc.), and therefore would not have the potential for net new shadow cast by the Project to materially impair their designation.

The building at 94 9th Street (St. George Serbian Orthodox Church) features stained-glass windows on the southern and western sides of the building near the corner of 9th and Oak Streets. While other locations along the southern and western facades of the building along with the roof would receive net new shadow from the Project, these windows would be the only feature potentially sensitive to the addition of net new shadow.

The four stained-glass windows along the southern (9th Street) façade would receive net new shadow from the Project starting at approximately 9:00 a.m. and be present for up to approximately three hours and 15 minutes between early November through early February (approximately 3 months). The four stained-glass windows (including the apse windows) along the western (Oak Street) façade would receive net new shadow over the course of the same dates, but from approximately 2:30 p.m. for approximately 30 minutes (until the end of the analysis period at 3 p.m.). While the impairment of direct light to the stained glass windows would be permanent after construction of the Project, it would not temporarily or permanently damage or destroy any physical, architectural feature of the chapel, church hall, or any part of the historic building. The Project's effect would occur for a limited period of time during winter morning hours on the southern façade and for 30 minutes during winter afternoons on the wester façade. While the Project would diminish direct sunlight for limited periods of time in winter, it would not prevent natural lighting from coming through the stained-glass windows of both facades during the same period of time. Further, it would not prevent all sunlight from entering the windows because ambient light from the sky as well as light reflected from other building surfaces would continue to illuminate the windows and building interior.

Considering Project shadow cast on the more sensitive features of St. George's Church would occur for only a portion of the year (approximately 3 months), would not shade both facades simultaneously or block natural ambient lighting, and the principal apse windows would be affected only for a short duration in the afternoon (approximately 30 minutes); the shadow effect on this historic resource would not materially impair the resource's historic significance and the impact would be considered less than significant.

The building at 100 9th Street (Madison Park Apartments) contains interior light wells narrow light courtyards that divide the building and provide access to light. New shading would be cast on these features from early November through early February starting at the beginning of the analysis period at 9:00 a.m. and would be present for up to approximately two hours and 15 minutes then shaded again starting at approximately 1:30 p.m. for approximately one hour and 30 minutes (until the end of the analysis period at 3 p.m.). Despite new Project shadow being cast on these sunlight-sensitive features, they would be affected for only a portion of the year (approximately 3 months), would not be physically altered or demolished, and the Madison Park Apartments would remain eligible for inclusion in the California Register. The significance of this historical resource would not be materially impaired and, therefore, the Project's shadow effects on 100 9th Street would be considered less than significant.

The Oakland Museum of California (OMCA, 1000 Oak Street) is a Brutalist-style building that embodies several character-defining features whose shadows are part of their architectural expression. These include some concrete structural members that cast dramatic shadows (e.g., projecting roof slabs supported by buttresses) and wood arbors and shade structures. The building also contains a character-defining landscaped courtyard that was integral to the building's original design and serves as outdoor exhibition space for sculptures and physical exhibits. New shading would be cast on these features in winter months beginning around 12:00 p.m. and would be present for up to approximately three hours (until the end of the analysis period at 3:00 p.m.). Shadow would not be cast on all of the features at once, nor would any features be subjected to continual shadow during this period. Additionally, the period of increased shadow on the OMCA coincides with the dormancy of many of the landscape elements contained within the courtyard. Despite new Project shadow being cast on these sunlight-sensitive features, they would be affected for only a portion of the year (approximately three months) and would not be physically altered or demolished, and the OMCA would remain eligible for inclusion in the California Register. The significance of this historical resource would not be materially impaired, and the Project's shadow effects on 1000 Oak Street is therefore considered to be less than significant.

The Project would also cast shadow across portions of the Lake Merritt API, Real Estate Union Group API, and 7th Street Residential API. However, as with the 22 identified individual historic resource sites (other than the St. George Church and the Madison Park Apartments), no other individual structures within these districts possess features that contribute and/or justify their designation as an historic resource. While stained-glass windows are present on some contributors to the 7th Street Residential API with frontage on 8th, 7th, Oak, and Madison streets, many of these are already shaded, as they are located within recessed entries or are blocked by trees. New Project shadow would occur only during the morning hours and would not materially harm their designations. Accordingly, the Project's shadow effect on the Lake Merritt API, Real Estate Union Group API, and 7th Street Residential API would be considered less than significant.

Therefore, the new Project shadow would not result in a significant impact. No other historic resources in the vicinity would be affected by net new shadow from the Project.

Wind (Criterion 2e)

The City of Oakland considers a significant wind impact to occur if a project were to "Create winds exceeding 36 miles per hour (mph) for more than one hour during daylight hours during the year." A wind analysis is required if a project's height is 100 feet or greater and one of the following conditions exists: (a) the project is located adjacent to a substantial water body; or (b) the project is located in Downtown. Since the Project would be greater than 100 feet in height and is located in Downtown, wind engineering experts, RWDI, conducted a wind study for the Project to assess the wind environment around the project site under existing and existing plus project conditions (see Appendix B**)**.

The wind analysis tested wind speeds at 119 locations on a model of the project site and all relevant surrounding buildings, trees, and topography within an approximate 1,600-foot radius of the project site. The wind analysis also tested wind speeds at 121 locations on the same model with a scale model of the Project in place. Test point locations were chosen to assess the effect of the proposed development on local wind conditions in critical pedestrian areas, including main entrances and public sidewalks and walkways. The analysis measured changes to the wind environment in terms of the criterion for wind hazards.

The results of the wind study show that existing average wind speed around the project site is approximately 21 miles per hour and the criterion for wind hazards—the 36 mph threshold for a significant wind impact—was not exceeded at any of the 119 test locations. Under existing plus project conditions, wind speeds generally remained similar with average wind speed measuring approximately 27 miles per hour. The criterion for wind hazards was not exceeded at any of the 121 test locations in the existing plus project configuration. Therefore, the Project would not result in a significant impact with respect to wind hazards.

7.2.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to aesthetics, shadow, or wind that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCAs AES-1**, **Trash and Blight Removal**; **AES-2**, **Graffiti Control**; **AES-3**, **Landscape Plan**; **AES-4 Lighting**; and **SCA UTIL-2**, **Underground Utilities** (see Attachment A) would be applicable to and would be implemented by the Project and would further ensure that aesthetics-related impacts would be less than significant. No mitigation measures are required.

7.3 Air Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; during project operation result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$, or 82 pounds per day of PM_{10}; result in maximum annual emissions of 10 tons per year of ROG, NO_X, or $PM_{2.5}$, or 15 tons per year of PM_{10}; or	☒	☐	☐
b. For new sources of Toxic Air Contaminants (TACs), during either project construction or project operation expose sensitive receptors to substantial levels of TACs under project conditions resulting in (a) an increase in cancer risk level greater than 10 in one million, (b) a noncancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ of greater than 0.3 microgram per cubic meter; or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 microgram per cubic meter; or expose new sensitive receptors to substantial ambient levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 microgram per cubic meter.	☒	☐	☐

7.3.1 Previous CEQA Documents Findings

Construction and Operational Emissions and Odors

The 1998 LUTE EIR identified mitigation measures that would address operational emissions effects to less-than-significant levels, and it found significant and unavoidable cumulative effects regarding increased criteria pollutants from increased traffic regionally. The 2011 Renewal Plan Amendments EIR found that implementation of the Renewal Plan would be consistent with the Clean Air Plan, but did not analyze individual construction or operational emissions. The 2011 Renewal Plan Amendments EIR identified effective SCAs to address potentially significant effects regarding construction-related emissions of criteria air pollutants, dust/particulate matter $(PM)_{10}$, and consistency with the applicable regional clean air plan. The 2011 Renewal Plan Amendments EIR identified significant and unavoidable impacts regarding odor impacts.

Toxic Air Contaminants

Analysis of Toxic Air Contaminants was not required when the 1998 LUTE EIR was prepared and thus the EIR did not quantify or address cumulative health risks. The 2011 Renewal Plan Amendments EIR identified significant and unavoidable impacts regarding cumulative health risks after the consideration of SCAs.

7.3.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR identified less than significant impacts regarding consistency with the current Bay Area 2010 Clean Air Plan ("Clean Air Plan"), with implementation of applicable SCAs. The 2014 LMSAP EIR also identified impacts associated with potential exposure of sensitive receptors to substantial health risks from toxic air contaminants ("TACs") from sources including both diesel particulate matter ("DPM") and gaseous emissions. The 2014 LMSAP EIR identified SCAs to reduce DPM exposure to less than significant levels, but risk from gaseous TACs would (plan and cumulative level) be a significant and unavoidable impact. The 2014 LMSAP EIR also identified potential impacts associated with the installation of back-up generators (a source of TACs) and identified SCAs to reduce the potential effect to less than significant. Moreover, as discussed further below, the Bay Area Air Quality Management District's ("BAAQMD") does not permit any new generators that may have emissions levels that pose adverse health impacts. The 2014 LMSAP EIR identified significant and unavoidable impacts regarding odor impacts.

The 2014 LMSAP EIR did not quantitatively assess criteria air pollutants from construction or operation, determining that such analysis shall be undertaken for specific projects, as applicable pursuant to the City of Oakland's thresholds of significance.

7.3.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Construction and Operational Emissions (Criterion 3a)

Construction Air Emissions

Project would be constructed in two phases with Block 1 construction and completion followed by Block 2 construction. Buildings within each block would be constructed simultaneously. For Block 1, construction of Building A is estimated to commence in 2024 and Building B in 2023. Block 2 construction is anticipated to commence in 2026, with demolition of the entire site. Construction of Building D would commence a few months prior to construction of Building C.

Assumptions for Construction Emissions

The Project Applicant refined project plans since the Air Quality construction emissions were estimated for this analysis. The project evaluated in this analysis included approximately 1,000 fewer square feet of retail and 33,000 additional square feet of office space. Therefore, the project evaluated in this analysis, described below, and associated estimated air quality emissions shown in Table GHG-1 represent a conservative analysis. The analysis below used the following assumptions to calculate average daily construction emissions associated with construction associated with each block of the Project:

- The length of the various construction phases (e.g., demolition, grading, building, etc.) were provided by the Project Applicant;
- The amount and types of construction equipment used for each phase and the number of off-road vehicle trips were provided by the Project Applicant;
- Demolition of 28,400 square feet of existing structures on Block 1 and 58,170 square feet on Block 2;
- Excavation and off-haul of 6,500 cubic yards of material from Block 1 and 30,000 cubic yards of material from Block 2 site preparation and grading;[17]
- Construction in Block 1 of 457 units of residential apartment use, 22,420 square feet of parking garage, 4,000 square feet of restaurant/café use, and 33,200 square feet of commercial office use.
- Construction in Block 2 of 100 units of residential apartment use, 80,600 square feet of parking garage, 6,200 square feet of daycare, 10,000 square feet of retail, and 525,610 square feet of commercial office use.

Analysis of Construction Emissions

The average daily construction-related emissions for the Project, based on the assumptions above, are presented in **Table AIR-1**. As shown in the table, annual average daily construction emissions for the Project would not exceed the City's Thresholds for ROG NO_X, PM_{10} or $PM_{2.5}$. These thresholds were developed to represent a cumulatively considerable contribution to regional air quality, and, as such, represent not only a project level threshold but a cumulative threshold as well. The 2014 LMSAP EIR did not quantitatively assess criteria air pollutants from construction. As shown in Table AIR-1, the Project would have less than significant project-level impacts with respect to construction emissions and thus would not result in a new or more severe significant impact compared with the 2014 LMSAP EIR.

[17] Recent Project plans include a small basement under Building A resulting in 4,500 additional cubic yards of excavation from Block 1. This change would not add a considerable number truck trips, would not result in a meaningful difference in emissions, and would not change the CEQA conclusions.

TABLE AIR-1
UNMITIGATED EMISSIONS FROM CONSTRUCTION (average lbs per day)[a]

Construction Year	ROG	NO_x	PM_{10}	$PM_{2.5}$
Average Daily Construction Emissions Block 1				
2022[b]	1.17	14.85	0.47	0.44
2023[b]	1.09	12.49	0.43	0.40
2024[b]	22.63	10.26	0.34	0.31
Average over total of Block 1 construction	7.12	12.65	0.42	0.39
Average Daily Construction Emissions Block 2				
2026	1.00	10.84	0.36	0.33
2027	1.69	19.29	0.61	0.57
2028	27.71	3.30	0.10	0.09
2029	0.68	6.29	0.20	0.20
Average over total of Block 2 construction	9.67	10.96	0.35	0.33
City of Oakland Thresholds	54	54	82	54
Significant (Yes or No)?	**No**	**No**	**No**	**No**

[a] Project construction emissions estimates were made using CalEEMod, version 2016.3.2. Emissions are average daily pounds per day.

[b] Changes to the project construction date have delayed Building A construction from 2022 until 2024. Consequently, the estimates in this table which assume construction commencing in 2022 are conservative in that they assume an earlier construction date and an older truck and equipment fleet.

SOURCE: ESA, 2021.

Operational Air Emissions

Assumptions for Operational Emissions

The analysis below used the following assumptions to calculate the daily operational emissions associated with a worst-case operational scenario for the Project:

- The vehicle trip generation rates that were input into CalEEMod (Version 2016.3.2) account for the 2000 Bay Area Travel Survey ("BATS") modal split adjustment factor that is required by the City of Oakland for near-transit developments as well as the elimination of existing vehicle trips generated by the existing office building on the project site;

- The operational emissions generated assumed no gas-burning or wood-burning fireplaces, pursuant to Action B-1 of the City's recently updated Equitable Climate Action Plan, which prohibits plumbing of natural gas for new buildings.;

- Default energy consumption rates reflecting 2013 Title 24 demand were adjusted down percent to reflect improvements due to the 2019 update to Title 24;

- Electrical CO2 emission factor was adjusted to reflect PG&E 's most recent published value from 2017;

- All wastewater treatment energy was assumed to be aerobically processed at EBMUD plant. Septic and lagoons contributions were set to a zero percentage;

- All other inputs in CalEEMod were based on model default values.

- Two backup diesel generators were assumed pursuant to California Building Code Requirements for buildings in excess of 70 feet. The generators were assumed to have a rating of 560 kW-hr (750 hp), a Tier 3 engine and to be operated for maintenance purposes 50 hours per year or about 1 hour per test day.

Analysis of Operational Emissions

The daily operational emissions for the Project, based on the assumptions above, are presented in **Table AIR-2**. As shown in the table, annual average daily regional emissions for the Project would not exceed the City's thresholds for ROG, NOx, PM_{10} or $PM_{2.5}$. As with the construction thresholds, these thresholds were developed to represent a cumulatively considerable contribution to regional air quality and, as such, represent not only a project-level threshold but a cumulative threshold as well. The 2014 LMSAP EIR did not quantitatively assess criteria air pollutants from operation under the LMSAP. As shown in Table AIR-2, the Project would have less than significant project-level impacts with respect to operational emissions and thus would not result in a new or more severe significant impact compared with the 2014 LMSAP EIR.

TABLE AIR-2
UNMITIGATED EMISSIONS FROM OPERATION (lbs per day)[a]

	ROG	NO_x	PM_{10}	$PM_{2.5}$
Project				
Area Source Emissions	21.61	0.26	0.13	0.13
Energy Emissions	0	0	0	0
Project Vehicle Emissions[b]	3.48	26.81	4.66	1.63
Backup Diesel Generator	0.33	1.51	0.05	0.05
Total Emissions	**25.43**	**28.58**	**4.83**	**1.80**
City of Oakland Thresholds	54	54	82	54
Significant (Yes or No)?	**No**	**No**	**No**	**No**

[a] Project operational emissions estimates were made using CalEEMod, version 2016.3.2.
[b] The vehicle trip rates used to calculate the emissions accounts for mode split and internal capture as recommended by the City of Oakland for projects located in dense, urban environments such as the project site.

SOURCE: ESA, 2020.

Toxic Air Contaminants (Criterion 3b)

Assumptions and Area Sources for Health Risk

TACs are types of air pollutants that can cause health risks. TACs do not have ambient air quality standards, but are regulated using a risk-based approach. This approach uses a health risk assessment to determine what sources and pollutants to control as well as the degree of control. The health risk assessment, presented in the analysis below, considers exposure to toxic substances and human health risks from exposure to toxic substances and is estimated, based on the potency of the toxic substances. Such an assessment evaluates chronic, long-term effects, calculating the increased risk of cancer as a result of exposure to one or more TACs.

Additionally, the City's CEQA significance thresholds require that new projects containing sensitive receptors (such as residences) be evaluated to determine whether those receptors would be exposed to health risks from existing nearby sources of TACs. When siting new sensitive receptors, existing TAC sources located within 1,000 feet including, but not limited to, stationary sources, freeways, and major roadways (10,000 or greater vehicles per day) should be considered.[18] The BAAQMD provides a publicly available inventory of TAC-related health risks for permitted stationary sources throughout the San Francisco Bay Area Air Basin as well as for freeways. The inventory presents community risk and hazards from screening tools and tables that are intentionally conservative. The screening-level risk factors derived from the BAAQMD's tools are intended to indicate whether additional review related to the impact is necessary and are not intended to be used to assess actual risk for all projects.

Analysis of Health Risk

Construction Impact. Regarding construction TACs emissions, project construction activities would produce DPM and $PM_{2.5}$ emissions due to exhaust emissions from equipment such as loaders, backhoes, and cranes, as well as haul truck trips. These emissions could result in elevated concentrations of DPM and $PM_{2.5}$ at nearby receptors. These elevated concentrations could lead to an increase in the risk of cancer or other health impacts. BAAQMD developed screening tables for commercial and residential land use development projects that estimate screening distances from sensitive receptors sufficient to avoid exposure to substantial construction-related health risks. For development sites of 1.7 acres in area, a screening distance of 95 meters (312 feet) is identified as sufficient to avoid a construction-related TAC impact. The project site is located approximately 65 feet from the nearest sensitive receptors across 7th Street, 8th Street, 9th Street, Oaks Street and Madison Street. Therefore, a potential impact of the Project regarding exposure to construction-related health risks to nearby receptors would be potentially significant.

The 2014 LMSAP EIR determined that sensitive receptors in proximity to construction-related DPM emissions (generally within 200 meters) could be subject to increased cancer risk, chronic health problems and acute health risk. However, all future development projects pursuant to the LMSAP would be subject to basic construction control measures through implementation of the City's SCAs including SCA AIR-1, Dust Controls – Construction Related; SCA AIR-2, Criteria Air Pollutant Controls – Construction Related; and SCA AIR-3, Diesel Particulate Matter Controls – Construction Related. Specifically, SCA AIR-3 requires all construction projects to implement construction-related Best Management Practices to substantially reduce construction-related impacts to a less-than-significant level.

SCA AIR-2, includes but is not limited to the following measures that would reduce DPM emissions from construction:

- Minimize the idling time of diesel-powered construction equipment to two minutes;
- Demonstrating that the off-road equipment to be used in the construction project would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate

[18] CEQA requires the analysis of potential adverse effects of a project on the environment. Potential effects of the environment on a project are legally not required to be analyzed or mitigated under CEQA. However, this analysis nevertheless assesses potential effects of "the environment on the project" in order to provide information to decision-makers.

matter ("PM") reduction compared to the most recent California Air Resources Board ("CARB") fleet average; and

- Ensuring that all construction equipment, diesel trucks, and generators are equipped with Best Available Control Technology for emission reductions of NOx and PM, and that off-road heavy diesel engines shall meet the CARB's most recent certification standard.

Subsequent to certification of the 2014 LMSAP EIR, the City has further revised SCA AIR-2, Criteria Air Pollutant Controls –, Construction Related to apply enhanced controls to construction activities involving greater than 100 dwelling units or 50,000 square feet of non-residential floor area. These enhanced controls require preparation of a Construction Emissions Minimization Plan for projects that exceed average daily construction emissions of 54 pounds per day of ROG, NOx, or PM2.5 or 82 pounds per day of PM10.

As the Project would exceed both of these criteria, the requirements of the SCA AIR-2 would apply. The requirements of the SCA AIR-3, Diesel Particulate Matter Controls – Construction Related have also been revised since certification of the 2014 LMSAP EIR to the following:

The project applicant shall implement appropriate measures during construction to reduce potential health risks to sensitive receptors due to exposure to diesel particulate matter (DPM) from construction emissions. The project applicant shall choose **one** of the following methods:

i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with current guidance from the California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment to determine the health risk to sensitive receptors exposed to DPM from project construction emissions. The HRA shall be submitted to the City (and the Air District if specifically requested) for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then DPM reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, DPM reduction measures shall be identified to reduce the health risk to acceptable levels as set forth under subsection b below. Identified DPM reduction measures shall be submitted to the City for review and approval prior to the issuance of building permits and the approved DPM reduction measures shall be implemented during construction.

-or-

ii. All off-road diesel equipment shall be equipped with the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by CARB. The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. This shall be verified through an equipment inventory submittal and Certification Statement that the Contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of contract.

In response to the requirements of SCA AIR-3, a construction health risk assessment was conducted for the Project (see Appendix C). The construction HRA was prepared to analyze the estimate the incremental increase in cancer risks, the chronic health hazards from TAC exposure, as well as exposure to fine particulates presented as the annual average $PM_{2.5}$ concentrations. A three-part process was used to calculated the health risk associated with construction activities. The first part is completed as part of the criteria pollutant analysis.[19] The PM_{10} exhaust from construction emissions conservatively represents the TACs in the particulate from diesel combustion i.e. DPM. The $PM_{2.5}$ exhaust construction emissions totals are applied to the annual average $PM_{2.5}$ concentration analysis.

To estimate the concentration of the DPM and $PM_{2.5}$ at sensitive receptor locations, the second part of the analysis, requires dispersion modeling utilizing the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD v19191). For construction, two areas sources were configured, each to individually represent emission from off-road equipment activity at Block 1 and Block 2.

In accordance with Office of Environmental Health Hazard Assessment's (OEHHA) 2015 *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, the final part of the HRA applied the concentrations of TACs at the receptors analyzed to established cancer potency factors and acceptable reference concentrations for non-cancer health effects. Because Block 2 construction would commence after the completion of Block 1, two receptor types were considered for the construction health risk assessment. Offsite, existing, residential receptors would be exposed to emissions from construction of the entirety of the Project while the new onsite receptors create as part of the Project, specifically in Building A, would be exposed to the emissions from construction of only Block 2. These would be considered the offsite Maximum Exposed Individual Receptor (MEIR) and onsite MEIR, respectively. Increased cancer risks were calculated using the modeled annual average DPM concentrations during the construction phases and OEHHA-recommended methodologies for residential receptors (3rd trimester through 2 years of age).

Table AIR-3 shows the cancer risk, chronic Hazard Index (HI) and $PM_{2.5}$ concentration at the MEIR from project-related construction activities for the offsite and onsite residential receptors. The table shows that cancer risk from uncontrolled project construction emissions at the MEIR would exceed the City's CEQA significance thresholds. The Project would be required to implement additional diesel emission control strategies pursuant to SCA AIR-3 which would reduce diesel PM exhaust emissions by requiring best available control technology on diesel off-road equipment. Implementation of measures pursuant to SCA AIR-3 assumes use of engines that meet the Tier 4 Final standards to achieve health risk exposure below significance thresholds at the nearest sensitive receptors. Currently, Tier 4 Final engines or installation of Level 3 verified diesel emission control strategies (VDECS) represent best available control technology for control of DPM, and are expected to reduce emissions by 85 percent.[20] Table AIR-3 shows that with the use of Tier 4 Final controls, all health risks at the MEIR would be under the City's significance thresholds for the residential receptors. Therefore, off-road equipment with EPA-certified Tier 4 Final engines is a required element of project construction.[21]

[19] Changes to the project construction date have delayed Building A construction from 2022 until 2024. Consequently, the construction emissions estimate, which assume construction commencing in 2022 are conservative in that they assume an earlier construction date and an older truck and equipment fleet.

[20] http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm

[21] With respect to the availability of Tier 4 final equipment, most recent update to statewide data (San Francisco Department of Environmental Planning, 2020 Off-Road Construction Equipment Vehicle Inventory, October 2020) from 2020 indicates that equipment with Tier 4 Final engines had increased to 33 percent of the San Francisco Bay Area Air Basin-wide fleet and it may reasonably be expected that the percentage is higher for large fleets in urban areas, such as Oakland. Furthermore, many construction projects in the Bay Area are requiring Tier 4 Final equipment as mitigation and are being monitored for compliance, thus demonstrating feasibility.

TABLE AIR-3
MAXIMUM HEALTH RISKS FROM PROJECT CONSTRUCTION

Health Risk at MEIR	Maximum Cancer Risk (in a million)	Chronic Risk (Hazard Index)	Maximum $PM_{2.5}$ concentration ($\mu g/m^3$)
Uncontrolled Scenario (prior to application of SCAs)			
Offsite Residential Receptor			
Existing Residential	**38.6**	0.08	**0.36**
Project-level Threshold	10	1.0	0.3
Significant?	**Yes**	No	Yes
Onsite Residential Receptor			
Block 1 Residential	**55.6**	0.04	0.20
Project-level Threshold	10	1.0	0.3
Significant?	**Yes**	No	No
SCA Scenario (With Tier 4 Final Equipment)			
Offsite Residential Receptor			
Existing Residential	2.9	0.01	0.03
Project-level Threshold	10	1.0	0.3
Significant?	No	No	No
Onsite Residential Receptor			
Block 1 Residential	4.9	<0.01	0.02
Project-level Threshold	10	1.0	0.3
Significant?	No	No	No

SOURCE: ESA, 2020.

The Project would also include demolition of the existing buildings and structures. It is estimated that of 28,400 square feet of existing structures on Block 1 would be removed as part of the demolition of the existing structures. Existing structures may contain Asbestos Containing Materials (ACM), which could pose a health risk to workers and nearby receptors during demolition. Consistent with SCA AIR-4, Asbestos in Structures, the Project would comply with all applicable laws and regulations regarding demolition and renovation of ACM.

Therefore, the potential impact of the Project regarding exposure of existing off-site and new on-site receptors to construction related health risks would be less than significant.

Project-Level Operations Impact. The backup diesel generators assumed for the two proposed high-rise structures of the Project would be the only new source of TACs associated with the Project. The 2014 LMSAP EIR acknowledged that stationary sources complying with applicable BAAQMD permit requirements generally would not be considered to have an individual significant air quality impact as the BAAQMD would deny an Authority to Construct or would deny a Permit to Operate any new or modified source of TACs that exceeds a cancer risk of 10 in one million or a chronic or acute hazard index of 1.0. Therefore, the health risks impact of the Project on the environment would be less than significant.

The 2014 LMSAP EIR identified a potential significant and unavoidable impact with regard to operational impacts of TAC emissions based on the acknowledgement that while current SCA's have requirements for closed ventilation with filtration for new sensitive receptor dwellings in high exposure areas, such filtration would be ineffective for gaseous TACs which would not be captured with filters.

Subsequent to certification of the 2014 LMSAP EIR, the City has further adopted SCA AIR-5, Stationary Source of Air Pollution. This SCA applies to all projects that involve a stationary pollutant source requiring a permit from BAAQMD including back-up diesel generators. This SCA requires the project applicant to incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants. The project applicant is to choose **one** of the following methods:

a. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable.

-or-

b. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:

    i. Installation of non-diesel fueled generators, if feasible, or;

    ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible.

In response to the requirements of SCA AIR-5, an operational health risk assessment was conducted for the Project (see Appendix C). The operational HRA was prepared to analyze the estimate the incremental increase in cancer risks, the chronic health hazards from TAC exposure, as well as exposure to fine particulates presented as the annual average $PM_{2.5}$ concentration. Same as with the construction HRA, a three-part process was used to calculated the health risk associated to operational activities. Part one is completed as part of the criteria pollutant analysis. The PM_{10} exhaust from emergency generator emissions conservatively represents the TACs in the particulate from diesel combustion i.e. DPM. The $PM_{2.5}$ exhaust emergency generator emissions totals are applied to the annual average $PM_{2.5}$ concentration analysis.

The concentration of the DPM and $PM_{2.5}$ at sensitive receptor locations is then estimated by running the dispersion modeling AERMOD (v19191) with two point sources, each to individually represent emission from emergency generators at Block 1 and Block 2.

In accordance with Office of Environmental Health Hazard Assessment's (OEHHA) 2015 *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, the final part of the HRA applied the concentrations of TACs at the receptors analyzed to established cancer potency factors and acceptable reference concentrations for non-cancer health effects. Existing offsite receptors as well as new onsite receptors created as part of the Project (both Block 1 and 2) are evaluated as sensitive receptors because operational emissions are assessed as 30 years of exposure under constant annual operational conditions. The sensitive receptor with the maximum annual average exposure to DPM is be considered the MEIR. Increased cancer risks were calculated using the modeled annual average DPM concentrations during the construction phases and OEHHA-recommended methodologies for residential receptors (3rd trimester through 30 years of age).

Table AIR-4 shows the cancer risk, chronic Hazard Index (HI) and $PM_{2.5}$ concentration at the MEIR from project-related operational activities for all residential receptors. The table shows that cancer risk from uncontrolled project operational emissions at the MEIR would not exceed the City's CEQA significance thresholds.

TABLE AIR-4
MAXIMUM HEALTH RISKS FROM PROJECT OPERATIONS

Health Risk at MEIR	Maximum Cancer Risk (in a million)	Chronic Risk (Hazard Index)	Maximum $PM_{2.5}$ concentration ($\mu g/m^3$)
Uncontrolled Scenario (prior to application of SCAs)			
Residential Receptor[a]	5.3	<0.01	0.01
Project-level Threshold	10	1.0	0.3
Significant?	No	No	No

[a] Project operational MEIR is located in Building A. Existing offsite receptors had impacts less than the operational MEIR.

SOURCE: ESA, 2020.

Table AIR-4 shows that project operations of the two emergency generators would result in all health risks at the MEIR would be under the City's significance thresholds for the residential receptors. Therefore, the potential impact of the Project regarding exposure of existing off-site and new on-site receptors to operations related health risks would be less than significant.

Cumulative Impact. Regarding exposure of new sensitive receptors to existing and new sources of TACs, the screening health risk analysis contained herein relies on the BAAQMD's conservative screening-level tool to determine project-specific increased cancer risk exposure associated with these sources. According to BAAQMD's conservative screening-level tool for Alameda County, there are seven stationary TAC sources within 1,000 feet of the project site.

ESA conducted refinements to these screening values to account for distance between receptors on the project site and the stationary TAC sources within 1,000 feet of the project site. **Table AIR-5** presents the results of this refined, project-specific, screening effort that includes the risks posed by the Project's backup diesel generators. As shown, the cumulative cancer risks for new receptors (residents) of the Project would be below the significance criterion of 100 in one million. The table also shows that cumulative $PM_{2.5}$ concentration contributions would exceed 0.8 micrograms per cubic meter and, unabated, would be considered significant. However, SCA AIR-6, Exposure to Air Pollution (Toxic Air Contaminants), (see Attachment A) requires the project applicant to either:

(1) provide air filtration (MERV 13) to reduce cancer risks and Particulate Matter (PM) exposure for residents;

-or-

(2) retain a qualified air quality consultant to prepare a Health Risk Assessment. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City.

As the Project would be within 1,000 feet of seven permitted stationary sources and highways or major streets, a cumulative screening health risk assessment was conducted. The screening analysis follows the BAAQMD guidance for a cumulative assessment and is presented in Table AIR-5.

Pursuant to 2019 Title 24 building requirements and SCA AIR-6, the design of the proposed residential spaces would be required to provide air filtration (MERV 13) to reduce cancer risks and Particulate Matter (PM) exposure for residents. US EPA identifies MERV 13 filters as having a 90 percent or greater removal efficiency for auto emission particles (1 to 3 microns in diameter).[22] As such, $PM_{2.5}$ concentration contributions would be reduced to 0.80 μg/m3 or less and the cumulative health risk exposure impact would be less than significant.

[22] U.S. EPA, Residential Air Cleaners, a Summary of Available Information, August 2009, page 11.

TABLE AIR-5
CUMULATIVE HEALTH IMPACTS FOR NEW RECEPTORS

Site #	Facility Name (source type)	Address	Cancer Risk (persons per million)	Chronic Hazard Impact	PM2.5 Concentration (μg/m3)
14068	Bay Area Rapid Transit (Generator)	101 8th Street (project Site)	2.46	<0.01	<0.01
18628	Alameda County Public Works (Generator)	37.797; -122.262[a]	1.53	0	<0.01
3737	George V. Arth & Son (Surface Coating)	110 10th Street	0	0	0
22033	Oakland Museum of California (Surface Coating, Generator, Boilers)	1000 Oak Street	0.44	0	0.27
23040	Caliber Collision Center (Surface Coating)	149 11th Street	0	0	0
13929	Alameda County GSA(Generator)	1106 Madison Street	0.27	0	0
17190	Alameda County GSA(Generator)	1221 Oak Street	0.07	0	0
		Project Generators	5.28	<0.01	0.01
		Highway Sources [b]	35.9	NA	0.57
		Major Street Sources [b]	2.17	NA	0.02
		Rail Sources [b]	7.74	NA	0.01
		Cumulative Impacts [c]	51.9	<0.01	**0.88**
		City of Oakland Significance Criteria (new receptor)	100	10	0.8
		Potentially Significant Impact?	No	No	**Yes**

a The BAAQMD inventory does not identify a specific street address for these sources but, rather, locates these sources using UTM coordinates.
b The BAAQMD background risk GIS tools for mobile source types do not specify the risk contributions by individual roadways or rail lines.
c Impacts presented are without quantified reductions from MERV13 filtration.

SOURCE: BAAQMD, 2020; ESA, 2020.

7.3.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to air quality that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents**.** Based on the analysis, with implementation of the applicable SCAs, the Project would not exceed any of the City's applicable significance thresholds related to air quality. Therefore, Project construction and operation would result in less-than-significant impacts relating to air quality, including health risk. Based on the health risk analysis above, implementation of the Project would result in less-than-significant impacts related to construction, operation, and cumulative TAC emissions; which were addressed in the 2014 LMSAP EIR and found to be significant and unavoidable. **SCA AIR-1**, **Dust Controls – Construction-**

Related; **SCA AIR-2**, **Criteria Air Pollutant Controls - Construction Related**; **SCA AIR-3**, **Diesel Particulate Matter Controls-Construction Related**; **SCA AIR-4**, **Asbestos in Structures**; **SCA AIR-5, Stationary Sources of Air Pollution (Toxic Air Contaminants)**; and **SCA AIR-6, Exposure to Air Pollution (Toxic Air Contaminants)** (see Attachment A) would be applicable to and would be implemented by the Project to further ensure that, to the extent feasible, air quality impacts associated with the Project are less than significant. No mitigation measures are required.

7.4 Biological Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means; Substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;	☒	☐	☐
b. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code [OMC] Chapter 12.36) by removal of protected trees under certain circumstances; or Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.	☒	☐	☐

7.4.1 Previous CEQA Documents Findings

The Previous CEQA Documents identified less-than-significant impacts related to biological resources, with the 2011 Renewal Plan Amendments EIR identifying applicable City of Oakland SCAs. No mitigation measures were necessary.

7.4.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR identified 12 special-status species[23] that are known to have the potential to occur within the LMSAP Area. No additional special-status species are anticipated to have the potential to occur within the project site. Within the Plan Area, Lake Merritt and the Lake Merritt Channel are places where there are particularly sensitive areas with regard to biological resources;

[23] California brown pelican, double-crested cormorant, American peregrine falcon, Alameda song sparrow, Barrow's goldeneye, Cooper's hawk, red-shouldered hawk, red tailed hawk, pallid bat, big free-tailed bat, hoary bat, silver-haired bat.

however, the lake and channel are 0.25 miles from the project site and are not expected to be impacted by project construction. In addition, the 2014 LMSAP EIR identified less-than-significant impacts related to biological resources with implementation of applicable SCAs. No mitigation measures were necessary and none are proposed for the Project.

7.4.3 Project Analysis

Redevelopment of Block 1 and Block 2 was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Special-Status Species, Riparian and Sensitive Habitat, Wetlands, Wildlife Corridors, Tree and Creek Protection (Criteria 4a and 4b)

A field survey to assess biological resources was conducted by ESA on June 17, 2020. The intent of the survey was to document any special-status plant or wildlife species, or habitats that could support these species, as well as to document riparian habitat, other sensitive natural communities, wetlands, and wildlife corridors within the project site. The survey also included documenting any nesting birds protected by the Migratory Bird Treaty Act (MBTA), or potential nesting habitat for these bird species. The nesting bird survey area included the project site, plus a 200-foot buffer around the project site, based on the City of Oakland's SCA BIO-1, Tree Removal During Bird Breeding Season, which is applicable to the Project, and stipulates a 200-foot no disturbance buffer for nesting raptors, and a 50-foot no disturbance buffer for all other nesting birds, during tree removal. The project site and 200-foot buffer area are collectively referred to as the "study area" in the following analysis.

Special-Status Plant and Wildlife Species and Birds Protected by the Migratory Bird Treaty Act

No special-status plant or wildlife species were observed during the field survey on June 17th. As previously described, the project site is located in the fully developed urban area of Downtown. Block 1, the portion of the project site bounded by Oak Street, 8th Street, Fallon Street, and 9th Street, is comprised of the Lake Merritt BART station, hardscape pedestrian plaza, parking lot, and landscape trees and shrubs. Block 2, the portion of the project site bounded by Oak Street, 8th Street, Madison Street, and 7th Street, is comprised of the 4-story Metro Center office building, a paved parking lot, street trees, and a few ornamental plants associated with the building's elevated patio. The 200-foot project site buffer includes city streets, single-family and multi-family residences, Laney College, Madison Square Park, and landscape trees and plants. As such, terrestrial wildlife habitat within the study area is limited to trees such as African fir pine (*Afrocarpus falcatus*), Peruvian peppertree (*Schinus tmolle*), olive (*Olea europa*), African sumac (*Rhus lancea*), Italian cypress (*Cupressus sempervirens*), Eucalyptus (*Eucalyptus* sp.), London plane tree (*Platanus acerifolia*), and southern magnolia (*Magnolia grandiflora*), and landscape plants, such as rose (*Rosa* sp.), English ivy (*Hedera helix*), oleander (*Nerium oleander*), island mallow (*Malva assurgentiflora*), and jasmine (*Jasminium* sp.).

Street trees and landscape plants provide limited habitat to support special-status wildlife species, but can provide cover, foraging, and nesting habitat for a variety of common bird species, especially those that are tolerant of human presence. Bird species observed during the field survey on June 17th include oak titmouse (*Baeolophus inornatus*), American robin (*Turdus migratorius*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), double-crested cormorant (*Phalacorax auritus*), black-crowned night heron (*Nycticorax nicticorax*), and an unknown species of gull (*Larus* sp.). None of these species, except double-crested cormorant, are special-status; however, all of them, and many other common bird species, are protected by the Migratory Bird Treaty Act[24] and California Fish and Game Code Sections 3503, 3503.5, and 3513[25] and some could nest in the landscape trees and shrubs in the study area. In addition, one special-status species, Cooper's hawk (*Accipiter cooperi*), has been increasingly documented nesting in mature urban street trees in the San Francisco Bay Area and could nest within the study area. No active bird nests were observed during the field survey on June 17th and there was no evidence of any trees within the study area having been used by egrets or herons as rookeries. The City of Oakland's SCA BIO-2, Tree Removal During Bird Breeding Season would ensure breeding birds would be protected during project construction and operations, resulting in equal or less severity of impact from the Project as compared to that identified in the 2014 LMSAP EIR.

Riparian Habitat, Sensitive Natural Communities, and Wetlands

The study area does not include riparian or other sensitive natural communities, nor does it have vegetation and hydrological conditions suitable for sustaining wetlands; therefore, no potential impacts to these biological resources are anticipated.

Wildlife Corridors

The project area is located within the Pacific Flyway along the southern shoreline of San Francisco Bay. Although specific migratory corridors near the project area are unknown, it can be assumed that numerous birds pass overhead or in the project vicinity during spring and fall migrations. The only existing building on the project site is 4 stories tall (approximately 40 feet high). Of the Project's four new buildings, one will be 28 stories (275 feet tall), one will be 19 stories (275 feet tall), and two will be 7 stories (83 feet tall). The Project is likely to increase the amount of glass in the built environment, given the increased height and surface area of the newly constructed buildings relative to the existing building. Typically, as building size increases, so does the amount of glass, making larger buildings more of a collision threat to birds.[26] Many bird collisions are also induced by artificial night lighting, particularly from large buildings, which can be especially

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24 The Migratory Bird Treaty Act (MBTA) makes it unlawful to intentionally pursue, hunt, take, capture, or kill migratory birds anywhere in the United States. The law also applies to the intentional disturbance and removal of nests occupied by migratory birds or their eggs during the breeding season. On December 22, 2017, the U.S. Department of the Interior redefined "incidental take" such that "take" does not prohibit or penalize the incidental take of migratory birds that results from actions without motivation to harm birds. This interpretation differs from the prior federal interpretation of "take," which prohibited all incidental take of migratory birds, whether intentional or incidental. However, California state regulations protect bird nests with eggs or young from incidental take, as discussed below.

25 Under these CFGC sections, a project operator is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory non-game bird; the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds; or the taking of any non-game bird under CFGC Section 3800. CFGC Section 3513 adopts the U.S. Department of the Interior's take provisions under the MBTA. As described above, in 2017, the U.S. Department of the Interior redefined "incidental take" under the MBTA; however, CDFW subsequently issued an advisory that affirms that California law continues to prohibit incidental take of migratory birds

26 San Francisco Planning Department, *Standards for Bird-Safe Buildings*, adopted July 14, 2011.

problematic for migrating songbirds because many are nocturnal migrants.[27] Research suggests that fatal bird collisions increase as light emissions increase.[28]

As described in the 2014 LMSAP EIR, construction of tall buildings and additional lighting as part of the LMSAP could result in impacts to migrating birds; however, concluded that impacts would be less than significant because projects would be required to implement AES-4, Lighting, and because the LMSAP requires towers to be stepped back from building bases. Because the project's proposed buildings are consistent with the approved 2014 LMSAP EIR, project impacts would be of equal or less severity as compared to that identified in the 2014 LMSAP EIR.

City of Oakland Tree Protection Ordinance

Sixty-six existing trees are planned for removal to accommodate project construction, of which the majority would be considered "Protected Trees," per Oakland's Protected Tree Ordinance. The City of Oakland Code of Ordinances, Chapter 12.36 *Protected Trees* defines "protected trees" as a coast live oak (*Quercus agrifolia*) measuring four inches or greater diameter at breast height (dbh), or any other tree measuring nine inches or greater dbh, except Eucalyptus and Monterey pine (*Pinus radiata*). In addition, any tree of any size located in the public right-of-way (including street trees), is protected. Although no coast live oaks or native groves of Monterey pines were identified during the survey, many of the trees to be removed are street trees, and many trees have a dbh of nine inches or greater[29], and are considered protected trees. The Project Applicant would be required to implement SCA BIO-2, Tree Permit, ensuring compliance with the City's Tree Protection Ordinance regulating tree protection during construction and any tree removal on the project site. In addition, the Project would install new street trees, as required, along all of the street frontages. Therefore, there would be equal or less severity of impact from the Project as compared to that identified in the 2014 LMSAP EIR.

City of Oakland Creek Protection Ordinance

There is no aquatic habitat within the survey area and the Project would result in equal or less severity of impact related to creeks as compared to that identified in the 2014 LMSAP EIR. Nevertheless, the Project would comply with SCAs relating to stormwater runoff from construction and operation including SCA HYD-1, Erosion and Sedimentation Control Measures for Construction; SCA HYD-2, State Construction General Permit; and SCA HYD-3, NPDES C.3 Stormwater Requirements for Regulated Projects (see Section 7.9, *Hydrology and Water Quality*). Each of these measures would contribute to protection and health of creeks and waterways downstream of the project site.

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27 L.E. Ogden, *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds, Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program*, September 1996. Available at https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1002&context=flap.

28 F.J. Verheijen, Bird Kills at Lighted Man-Made Structures: Not on Nights Close to a Full Moon, *American Birds* 35(3):251–254, 1981.

29 Lake Merritt Redevelopment Plan Package, Block 1 Tree Survey and Block 2 Tree Survey. Sheets LO.6, LO.61, LO.7, and LO.71. August 8, 2019.

7.4.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to biological resources that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCAs BIO-1**, **Tree Removal During Bird Breeding Season**; **SCA BIO-2**, **Tree Permit; SCA AES-4, Lighting; SCA HYD-1**, **Erosion and Sedimentation Control Measures for Construction**; **SCA HYD-2**, **State Construction General Permit**; and **SCA HYD-3**, **NPDES C.3 Stormwater Requirements for Regulated Projects** (see Attachment A) would be applicable to and would be implemented by the Project and would further ensure that potential impacts related to biological resources would be less than significant. No mitigation measures are required.

7.5 Cultural Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of an historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance **and** that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historic Places, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☒	☐	☐

7.5.1 Previous CEQA Documents Findings

The 1998 LUTE EIR identified potentially significant impacts to historical resources, and identified mitigation measures to reduce the impact to less than significant. The Redevelopment Plan EIR, which addresses much of the oldest part of Downtown Oakland, identified a significant and unavoidable impact to historical resources, even with the implementation of mitigation measures. The Housing Element Update EIR and its 2014 Addendum identified City of Oakland SCAs pertaining to historical resources and found a less-than-significant impact.

Each of the Prior EIRs identified less-than-significant effects to archaeological and paleontological resources and human remains, specifically with the incorporation of City of Oakland SCAs, except that the LUTE EIR identified mitigation measures to reduce the effects to archaeological resources to less than significant.

7.5.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR does not include a project-level analysis of historical resources, indicating that project-level analysis shall be conducted for individual development projects in the LMSAP. The 2014 LMSAP EIR determined that there would be significant cumulative impacts to historical resources, with the Plan's contribution being cumulatively considerable. With regard to aesthetics, the 2014 LMSAP EIR determined that impacts to the distinctive character and qualities of the 7th Street/Harrison Square Residential District Area of Primary Importance (API), which is considered a historical resource for the purposes of CEQA and surrounds the project site on multiple sides, would be less than significant with adherence to existing General Plan policies, the Oakland Municipal Code, and SCAs. The 2014 LMSAP EIR further determines that impacts to archaeological resources, paleontological resources, and human remains would be less than significant with the implementation of applicable SCAs. The 2014 LMSAP EIR indicates that paleontological sensitivity of the geologic units underlying the Plan Area is considered to be low to moderate.

7.5.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Historical Resources (Criterion 5a)

The Project would include demolition of all buildings and structures on Block 1 with the exception of two BART entrances (referred to as "headhouses" on the demolition plans), the BART sunshade structure along Oak Street, and the BART station skylight, all of which will remain in place. All buildings and structures on Block 2 would be demolished. Neither the BART station nor any of the individual buildings or structures on Blocks 1 or 2 qualify as a historical resource for the purposes of CEQA, and demolition would not result in a new impact.

There are three individual properties and one API located within the immediate vicinity of the project site that are considered historical resources for the purposes of CEQA. Although the project site is not located within a designated historic district, it is across the street from the 7th Street/Harrison Square Residential District API on multiple sides: 8th Street (south of Block 1), Oak Street (east of Block 2), 7th Street (south of Block 2), and Madison Street (west of Block 2). When it was first documented in 1985 as part of the Oakland Cultural Heritage Survey, the API was determined to be an architecturally significant concentration of middle- and lower-middle-class housing constructed largely between 1889 and 1910. It contains single- and multiple-family residential buildings that are one and two stories in height and designed in a variety of architectural styles, with Queen Anne and Colonial Revival being the most prevalent. Despite more modern additions of several industrial and apartment buildings, the API is unified in scale, apparent density, use, and the relation of buildings to lots. One contributing building that is located within the API and directly across 8th Street on the south side of Block 1 is also considered an individually significant historical resource: the Lougee-Baumgartner House (51 8th Street, A1+ rating), constructed in 1890-91 and described in the 1983 Oakland Cultural Heritage Survey as "among Oakland's most elaborate and most intact surviving large Queen Anne residences, distinguished by its richly varied forms, ornamentation and surface treatments." Across 9th Street on the north side of Block 1 is the St. George Serbian Orthodox Church (94 9th Street, B+3 rating) and the Madison Park Apartments (100 9th Street, A3 rating), both of which are considered to be historical resources for the purposes of CEQA.

Potential impacts to historical resources would include vibration during construction and shadow cast by new construction. None of the four historical resources in the immediate vicinity is within or immediately adjacent to the project site, and therefore potential effects from construction vibration would be less than significant.

The historical resources that could be subject to increased shadow as a result of the Project vary in design, type, and variety of character-defing features. Those that possess the following sunlight-sensitive features that could be affected by the project shadow are described below:

- Stained-glass: St. George Serbian Orthodox Church (94 9th Street), the Lougee-Baumgartner House (51 8th Street), and contributors to the API with frontage on 8th, 7th, Oak, and Madison Streets;
- Elaborately carved ornamentation: Lougee-Baumgartner House (51 8th Street); Madison Park Apartments (100 9th Street); and contributors to the API with frontage on 8th, 7th, Oak, and Madison Streets; and
- Design elements that depend on the contrast between light and dark (e.g., open galleries, arcades, or recessed entries or balconies): Lougee-Baumgartner House (51 8th Street); St. George Serbian Orthodox Church (94 9th Street); Madison Park Apartments (100 9th Street); Oakland Museum of California (1000 Oak Street); and contributors to the API with frontage on 8th, 7th, Oak, and Madison Streets.

As shown in the shadow diagrams prepared for the Project (see Appendix A), net new shadow would not be cast on the Lougee-Baumgartner House (51 8th Street) or on contributors to the API with frontage on Oak Street, but would shade the other resources listed above at certain times and months throughout the year. Despite the project shadow being cast on these historical resources to varying degrees throughout the year, the character-defining features (including the sunlight-sensitive features listed above) would not be physically altered or demolished, and the historical resources would remain eligible for inclusion in the California Register. As discussed in detail above, new shading on neighboring stained-glass features would be partial and limited in duration (see Section 7.2, *Aesthetics)*. Because the significance of these historical resources would not be materially impaired, potential effects from the project shadow would be less than significant.

Based on the discussion above, the Project would not result in any new or more severe significant impacts on historical resources than those identified in the Previous CEQA Documents.

The 2014 LMSAP EIR identified significant cumulative impacts to historical resources, with the Plan's contribution being cumulatively considerable. The 2014 LMSAP EIR analyzed projected development within a number of opportunity sites in the LMSAP, and these included both Blocks 1 and 2 of the Project. Because development within the project site would not result in new impacts to historical resources and the project site was previously analyzed for cumulative impacts to historical resources, the Project would not result in any new or more severe cumulatively considerable impacts to historical resources.

Archaeological and Paleontological Resources and Human Remains (Criteria 5b through 5d)

Historic maps and aerial imagery show that both Block 1 and Block 2 were developed with dozens of residential buildings by at least 1902. Conditions remained relatively unchanged until the early 1960s, and the construction of BART and the related facilities. Extensive ground disturbance occurred on both blocks, including removal of all buildings and structures. Construction of BART through Block 1 required mass excavation through most of the center of the block. Both blocks served as surface parking lots though the 1970s. In 1984, the Joseph B. Port Metro Center office building was constructed on Block 2, which required additional extensive ground disturbance for the subgrade parking areas and building foundations.

A review of previous records from the Northwest Information Center of the California Historical Resources Information System indicates that there are three previously recorded prehistoric archaeological sites in the general vicinity of the project site. These resources consist of shell deposits, some of which is likely disturbed fill acquired from outside locations and re-deposited. The nearest of these resources is approximately 500 feet from the project site. The review also indicated that there are several historic-era archaeological resources in the vicinity of the project site, consisting of deposits of glass, ceramic, and other artifacts related to the early historic-era occupation. The nearest of these resources is approximately 1,000 feet from the project site.

Any surface or near surface prehistoric archaeological sites or deposits associated with the late 1800s/early 1900s residential buildings most likely would have been destroyed during the 1960s-1980s construction activities. While the general area has archaeological sensitivity and the Project would involve excavation to depths of approximately 16 feet below the existing grade, extensive previous disturbance indicates that the proposed ground disturbance will primary occur in previously disturbed areas. Therefore, there is a low potential to uncover archaeological resources in the project site.

While there is a low potential to impact archeological resources, as well as potential human remains, as noted in the 2014 LMSAP EIR the possibility cannot be entirely discounted. SCA CUL-1, Archaeological and Paleontological Resources – Discovery During Construction and CUL-2, Human Remains – Discovery During Construction would require all work within 50 feet of an inadvertent discovery of any subsurface archaeological materials to halt and a qualified archaeologist to assess the significance of the find according to regulatory guidance. As noted in the 2014 LMSAP EIR, implementation of SCAs CUL-1 and CUL-2 would ensure that archaeological resources are recovered and that appropriate procedures are followed, as well as the appropriate procedures for handling and identifying human remains.

Given the extensive previous ground disturbance in the project site, the potential to uncover paleontological resources is also considered low. Implementation of SCA CUL-1 would also require a qualified paleontologist to document an inadvertent discovery so that appropriate procedures are followed for documenting and recovering paleontological resources.

7.5.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to cultural resources that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCAs CUL-1**, **Archaeological and Paleontological Resources – Discovery During Construction**; and **CUL-2, Human Remains – Discovery During Construction** (see Attachment A) would be applicable to and would be implemented by the Project and would further ensure that potential impacts associated with cultural resources would be less than significant. No mitigation measures are required.

7.6 Geology, Soils, and Geohazards

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Expose people or structures to substantial risk of loss, injury, or death involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or • Landslides;	☒	☐	☐
b. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property; result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways.	☒	☐	☐

7.6.1 Previous CEQA Documents Findings

The Previous CEQA Documents identified that impacts to geology, soils, and geohazards would be less than significant, with the 2011 Renewal Plan Amendments EIR identifying applicable City of Oakland SCAs. No mitigation measures were necessary.

7.6.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that with implementation of SCAs, impacts related to seismic hazards and unstable soils would be less than significant with development occurring under the LMSAP. No mitigation measures were necessary.

7.6.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Seismic Hazards, Expansive Soils, and Soil Erosion (Criteria 6a and 6b)

The site is relatively flat with a gradual downward slope from the northwest corner to the southeast corner and not located in a landslide area or in an area of known unstable soil conditions. The project area is not within a seismic hazard zone and is in an area of moderate liquefaction susceptibility, as mapped in the LMSAP.[30] Langan completed a preliminary geotechnical investigation for the project site by on January 23, 2020 (updated April 9, 2021)and determined that the project site is not within a liquefaction hazard zone as mapped in the California Geologic Survey's 2003 *State of California Seismic Hazard Zones, Oakland West Quadrangle Official Map*.[31]

The investigation determined that the site is underlain by approximately 5 feet of fill consisting of sand with variable silt and clay content with no record of whether or not the fill was compacted when placed. The fill is underlain by between 11 and 21 feet of medium dense to very dense Merritt sand over stiff to hard clay of the Alameda formation. Groundwater was encountered in the vicinity between about 10.7 and 15.8 feet. Although strong to very strong shaking is expected to occur at the project site during a major earthquake, the potential for liquefaction and liquefaction-induced settlement, including lateral spreading, to occur at the sites is low. The Project was determined to be feasible from a geotechnical standpoint. The investigation determined the primary factors to consider when designing and constructing the appropriate foundation system include the presence of the BART tunnel, the presence of moderately compressible clay, the presence of near-surface undocumented fill, and the anticipated building loads. The report included design recommendations to address these concerns and recommended that site conditions and design recommendations be confirmed as a part of design-level geotechnical investigation.

The Project requires a grading permit. As such; SCA GEO 1, Construction-Related Permit(s) and SCA GEO-2, Soils Report would be applicable to the Project. Per SCA GEO-1, the Project would be required to comply with the California Building Code's current seismic standards, which require specific design parameters for construction in various seismic environments to ensure that development of the Project would avoid and minimize potential geologic impacts through compliance specifically with local and state regulations governing design and construction practices. SCA GEO-2, requires the Project Applicant to submit a soils report prepared by a registered geotechnical engineer for City review and approval. It is possible that unknown groundwater wells and abandoned structures (pits, mounts, septic tank vaults, sewer lines, etc.) could be present and disturbed during grading and construction activities, which would be appropriately addressed through implementation of the SCAs applicable if the Project requires a grading permit.

7.6.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to geology and soils that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCA GEO-1**, **Construction-Related Permit(s)**; and **SCA GEO-2, Soils Report** (see Attachment A), would be applicable to and would be implemented by the Project and would further ensure that potential impacts associated with hazardous geologic and soils conditions would be less than significant. No mitigation measures are required.

30 Lake Merritt Station Area Plan EIR (Figure 3.12-1).

31 Langan Engineering and Environmental Services, Inc., 2020. *Preliminary Geotechnical Investigation Lake Merritt BART Redevelopment, Oakland, California*, January 23.

7.7 Greenhouse Gas and Climate Change

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically: • For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually AND more than 4.64 metric tons of CO_2e per service population annually. The service population includes both the residents and the employees of the project. The project's impact would be considered significant if the emissions exceed BOTH the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact would be considered less than significant if the project's emissions are below EITHER of these thresholds.	☒	☐	☐
b. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.	☒		

7.7.1 Previous CEQA Documents Findings

Climate change and greenhouse gas emissions (GHG) were not expressly addressed in the 1998 LUTE EIR. The 2011 Renewal Plan Amendments EIR identified less-than-significant GHG impacts with the implementation of applicable City of Oakland SCAs. No mitigation measures were necessary.

7.7.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR included GHG emissions and impacts analyses. It identified less-than-significant impacts with the implementation of the applicable City of Oakland SCAs, and no mitigation measures were necessary. The 2014 LMSAP EIR determined that development occurring under the LMSAP would not generate greenhouse gas emissions, either directly or indirectly, that would have a significant impact on the environment at the plan level or at the project-level. The estimate of emissions from service population annually was less than the applicable significance threshold, and implementation of the LMSAP would not fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions. The 2014 LMSAP EIR determined that development of specific projects under the Plan would be subject to all applicable regulatory requirements adopted for the purpose of reducing greenhouse gas emissions.

7.7.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Greenhouse Gas Emissions (Criterion 7a)

An analysis of the Project using the methodology recommended in the May 2017 BAAQMD CEQA Guidelines and the City of Oakland's adopted GHG Thresholds was conducted and found that the Project would not result in a significant effect (cumulative) relating to GHG emissions, as shown below. Both BAAQMD and the California Air Pollution Control Officers Association (CAPCOA) consider GHG impacts to be exclusively cumulative impacts, in that no single project could, by itself, result in a substantial change in climate. Therefore, the evaluation of GHG emissions impacts evaluates whether the Project would make a considerable contribution to cumulative climate change effects.

Construction GHG Emissions

The CalEEMod model run for the construction emissions associated with the Project (see Section 7.3, *Air Quality*) also calculated the GHG emissions that would be generated by construction activities of the Project. Construction-related emissions would total approximately 2,293 metric tons of CO_2 equivalents ("CO_2e") during the entirety of the seven-year construction period. As shown in **Table GHG-1**, annualized over an assumed project life of 40 years, construction-related GHG emissions would be approximately 57 metric tons per year of CO_2e. These emissions are factored into the total operational GHG emissions calculation below to determine significance.

TABLE GHG-1
PROJECT GHG EMISSIONS (metric tons per year)[a,b,c]

Project Component	CO_2e
Project	
Area Source Emissions Increase of Proposed Buildings	6.93
Area Source Emissions Decrease of Buildings to be Demolished	<0.01
Energy Emissions Increase of Proposed Buildings	1,418.3
Energy Emissions Decrease of Buildings to be Demolished	-232.6
Net Increase in Mobile Emissions with the Project	3,194.7
Backup Generator[c] Emissions	28.66
Solid Waste Emission Increase of Proposed Buildings	444.8
Solid Waste Emission Decrease of Buildings to be Demolished	-44.68
Water and Wastewater Emission Increase of Proposed Buildings	154.8
Water and Wastewater Emission Decrease of Buildings to be Demolished	-38.36
Annualized Construction Emissions (Over 40 Years)	57.32
Total Increase	**4,944**
Total Increase without Generators[d]	**4,916**
City of Oakland Screening Threshold	1,100
Total Emissions per Service Population of 2,166 (1,033 residents and 1,131 employees)	**2.3**
City Emissions per Service Population Threshold	4.6
Significant?	**No**
Total Non-transportation Emissions	**1,722**
Total Non-transportation Emissions per Service Population	**0.66**

a Project operational emissions estimates were made using CalEEMod, version 2016.3.2.
b Project operational energy emissions estimates included in this analysis are conservatively high as they did not consider the City's Building Electrification Ordinance passed in December 2020.
c The GHG analysis relied on inputs from the Transportation Analysis by Fehr & Peers.
d Emissions from stationary sources such as backup generators are assessed under a separate 10,000 metric ton per year threshold which is not exceeded.

Operational GHG Emissions

The Project would generate GHG emissions from many of the same sources as presented in air quality Tables AIR-1 and AIR-2 (see Section 7.3, *Air Quality*). Additionally, GHGs would be generated indirectly by increased electrical demand, increased water and wastewater demand, and increased solid waste generation.

The total operational GHG emissions for the Project are presented in Table GHG-1.[32] This table presents the project-related GHG emissions from all sources and assesses the impact relative to City thresholds. Emissions from stationary sources permitted by the BAAQMD are assessed separately from other emissions relative to a threshold of 10,000 metric tons per year of CO_2e. Emissions from the backup diesel generator would be below this threshold and therefore less than significant.

The Project evaluated in this analysis was assumed to include natural gas plumbing for heating, cooking and other building operational purposes and therefore provides a conservative evaluation of the Project's greenhouse gas impacts. On December 15, 2020, the Oakland City Council adopted an Ordinance, adding to the Oakland Municipal Code Chapter 15.37, "All-Electric Construction In Newly Constructed Buildings." These new regulations require all newly constructed buildings to meet the definition of an All-Electric Building, as defined therein. As a result, the Project will be required to be designed to use a permanent supply of electricity as the source of energy for all space heating, water heating, cooking appliances, and clothes drying appliances, and will be prohibited from having natural gas or propane plumbing installed in the building. Designing the building to use a permanent supply of electricity will reduce the estimated annual operational greenhouse gas emissions from energy emission sources of the Project.

As shown in Table GHG-1, the Project would exceed the threshold of 1,100 metric tons of CO2e per year but would be below the City's 4.6 metric tons of CO2e per service population threshold. Therefore, the GHG emission impact would be less than significant.

The GHG threshold applicable to the Project is the one in existence at the time of the certification of the 2014 LMSAP EIR. Subsequent to certification of the 2014 LMSAP EIR, the City adopted the Equitable Climate Action Plan (ECAP) (July, 2020) and revised its Standard Conditions of Approval to include SCA GHG-1, Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist on December 16, 2020. In compliance with the ECAP and SCA GHG-1, a consistency checklist was prepared for the Project (see Appendix D). The purpose of the ECAP Consistency Review Checklist is to determine, for purposes of compliance with CEQA, whether a development project complies with the ECAP and the City's GHG emissions reduction targets. According to the Project's ECAP Consistency Review Checklist, the Project has committed to all applicable GHG emissions reduction strategies, and would, therefore, be in compliance with the ECAP. Therefore, the Project would be required to implement SCA GHG-1, which would ensure that all ECAP Checklist items are incorporated into the design of the Project and included on the drawings submitted for construction-related permits. Since the Project has committed to all applicable GHG

[32] The Project Applicant refined project plans since the GHG emissions were estimated for this analysis. The project evaluated in this analysis included approximately 1,000 fewer square feet of retail and 33,000 additional square feet of office space. Therefore, the project evaluated in this analysis and estimated GHG emissions shown in Table GHG-1 represent a conservative analysis.

emissions reductions strategies described on the ECAP Consistency Checklist, Project GHG emissions associated with land use development would be less than significant.

The City's SCA requiring Greenhouse Gas Reduction Plan would not be applicable to the Project because a) the applicant has committed to all of the GHG emissions reductions strategies described on the ECAP Consistency Checklist; and b) the Project which involves stationary sources of GHG (two diesel emergency generators) which, as indicated in Table GHG-1 would produce total GHG emissions of less than 10,000 metric tons of CO2e annually.

Numerous other City of Oakland SCAs that would contribute to minimizing potential GHG emissions from construction and operations of development projects would apply to Project; they pertain to requirements for landscaping plans, alternative transportation facilities (bicycles and BART), construction equipment emissions, transportation demand management, construction waste reduction and recycling, as well as California Green Building Standards (SCA AES-3, Landscape Plan; SCA AIR-2, Criteria Air Pollutant Controls – Construction Related; SCA AIR-3, Diesel Particulate Matter Controls-Construction Related; SCA TRA-2, Bicycle Parking; SCA TRA-4, Transportation and Parking Demand Management; SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure; SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling; and SCA UTIL-4, Green Building Requirements).

Thus, these GHG measurements represent a conservative estimate that should be further reduced by the later enacted ECAP, ECAP Checklist, and Building Electrification Ordinance. Therefore, the Project would have an equal or less severe GHG impact compared to that previously identified in the 2014 LMSAP EIR.

The Project includes two diesel emergency generators for the elevator systems, which must comply with the BAAQMD's permit requirements for a stationary source. It was assumed that the generator would be operated for non-emergency purposes of testing and maintenance for a maximum of 50 hours per year consistent with BAAQMD permitting requirements for emergency generators. As shown in **Table GHG-1**, GHG emissions from the routine testing and maintenance of the emergency diesel generator would be below the City's threshold of 10,000 metric tons of CO_2e for stationary sources and would constitute a less than significant impact.

Consistency with GHG Emissions Plans and Policies (Criterion 7b)

The assessment of the Project's consistency with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GHGs includes *Plan Bay Area 2040*, CARB's 2017 Climate Change Scoping Plan Update, the most recent Oakland 2030 Equitable Climate Action Plan (recently passed in July 2020).

The Project would comply with the City's ECAP, current City Sustainability Programs, and General Plan policies and regulations regarding GHG reductions and other local, regional and statewide plans, policies and regulations that are related to the reduction of GHG emissions and relevant to the Project.

Specifically, as shown in the ECAP Checklist, the Project would be consistent with the State's Updated Climate Change Scoping Plan and the City's ECAP in that it will include a number of sustainability design features. The Project Applicant intends to meet GreenPoint Rated standards and comply with the City of Oakland Green Building ordinance and requirements. The Project would optimize the efficiency of its building envelopes, and would reduce domestic energy consumption through the use of efficient lighting and HVAC systems. The Project would meet the most recently implemented State Building Energy Efficiency Standards.

7.7.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to greenhouse gas emissions that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents**.** Based on the analysis above, with implementation of the applicable SCAs, the Project would not exceed any of the City's applicable significance thresholds related to GHG emissions or compliance with applicable plans, policies, and regulations adopted for the purposes of reducing greenhouse gas emissions. Implementation of **SCA GHG-1,** Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist (see Appendix D and Attachment A**)**, would be applicable to and would be implemented by the Project to further ensure that, to the extent feasible, greenhouse gas impacts associated with the Project are less than significant. In addition, implementation of **SCA AES-3**, **Landscape Plan**; **SCA AIR-2**, **Criteria Air Pollutant Controls – Construction Related**; **SCA AIR-3**, **Diesel Particulate Matter Controls-Construction Related**; **SCA TRA-2**, **Bicycle Parking**; **SCA TRA-4**, **Transportation and Parking Demand Management**; **SCA TRA-6**, **Plug-In Electric Vehicle (PEV) Charging Infrastructure**; **SCA UTIL-1**, **Construction and Demolition Waste Reduction and Recycling**; and **SCA UTIL-4**, **Green Building Requirements** (see Attachment A), would further ensure that impacts associated with greenhouse gas emissions would be less than significant. No mitigation measures are required.

7.8 Hazards and Hazardous Materials

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors; Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the "Cortese List") and, as a result, would create a significant hazard to the public or the environment;	☒	☐	☐
b. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;	☒	☐	☐
c. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions; or Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	☒	☐	☐

7.8.1 Previous CEQA Documents Findings

The Previous CEQA Documents found less-than-significant effects regarding hazards and hazardous materials including risk of upset in school proximity and emergency response/evacuation plans, with the 2011 Renewal Plan Amendments EIR identifying applicable City of Oakland SCAs. The 1998 LUTE EIR identified mitigation measures to reduce potentially significant effects regarding exposing workers and the public to hazardous substances to less-than-significant levels. These mitigation measures are now incorporated into the applicable City of Oakland SCAs.

7.8.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that with implementation of SCAs, impacts related to hazards and hazardous materials would be less than significant with development occurring under LMSAP. No mitigation measures were necessary.

7.8.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Exposure to Hazards, Hazardous Materials Use, Storage and Disposal (Criterion 8a)

In compliance with the City's SCA HAZ-2, Hazardous Building Materials and Site Contamination, a Phase I Environmental Site Assessment (ESA) was completed for the project site by Langan on May 17, 2019.[33] Based on environmental databases review and site reconnaissance, Langan identified two Recognized Environmental Conditions (RECs) and one Historical REC (HREC) associated with the Property during this Phase I ESA. These include an unknown status of a fuel oil underground storage tank (UST), vapor encroachment concern (VEC) from several historical dry cleaner properties located close to the project site, and an historical gas station located on the project site. To evaluate the environmental quality of the soil, soil vapor, and groundwater that could be encountered during project construction and to assess potential contamination that could cause vapor intrusion concerns, Langan prepared a Phase II ESA for project site. This report is summarized below.

Project site soil and groundwater was tested and analyzed to assess the need for health risk management protocols during project construction and operation, to assess possible hazardous waste criteria exceedances, and to assess potential vapor intrusion concerns during project operation. The results indicated no elevated concentrations of heavy metals in the layer of fill material and no hazardous levels of contaminants in the native material beneath the fill.[34] Groundwater analytical results detected contaminants exceeding both residential and commercial environmental screening levels (ESLs) and indicated that these contaminants are likely associated with an off-site source. Specifically, exceedances of chemicals of concern such as ethylbenzene and xylenes were found within the proposed footprint of Building A and Building B, both proposed for residential use. Exceedance of benzene and Tetrachloroethene (PCE) were encountered within the footprint of Building D, which is proposed for residential use including affordable housing. Significant concentrations of benzene, ethylbenzene and PCE were detected within the footprint of Building C, which is proposed for commercial use. As a result, Langan recommends additional soil vapor sampling to further evaluate potential vapor intrusion. The Project Applicant is pursuing a Corrective Action Plan through Alameda County Department of Environmental Health ('ACDEH') and expects to have an approved plan in 2021.

Project construction activities would include import and export of soil. As reported in the Phase II, groundwater was encountered at approximately 7.5 to 20 below ground surface at the site and discharge of groundwater could be required. As such, additional soil and groundwater

[33] Langan Engineering and Environmental Services, Inc., 2019. *Draft Phase I Environmental Site Assessment, Lake Merritt BART Development, Oakland, California*, May 17.

[34] Note subsurface material was not tested beneath the existing building. All soil off-hauled for disposal will be accepted depending on the receiving landfill or facility's acceptance criteria.

characterization would be required prior to off-site disposal of excess soil resulting from excavation and grading activities associated with the Project.

During the demolition and construction phases, construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. The routine use or an accidental spill of hazardous materials used in construction could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

As described in Section 5, *Project Description*, implementation of the Project would involve the demolition and removal of existing structures that could release hazardous building materials. Numerous existing regulations require that demolition and construction activities that may disturb or require the removal of hazardous materials must be inspected and/or tested for the presence of hazardous materials. If present, the hazardous materials must be managed and disposed of in accordance with applicable laws and regulations, as further described below.

As described in detail in the LMSAP EIR, various federal, State, and regional regulations govern the proper storage, handling, and transport of hazardous materials. In addition, developers wishing to develop "Cortese list" sites would have to apply for permits and perform cleanup and remediation actions required by the appropriate overseeing agency—the RWQCB or the DTSC. DTSC has authority to implement hazardous waste and hazardous substance laws in the California Code of Regulations, as well as the federal equivalents of these laws. RWQCB has authority under the Porter-Cologne Water Quality Control Act to require groundwater investigations and remediation as necessary.

Construction activities would be required to comply with numerous hazardous materials regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies.

Contractors would be required to prepare and implement Hazardous Materials Business Plans (HMBPs) that would require that hazardous materials used for construction would be used properly and stored in appropriate containers with secondary containment, as needed, to contain a potential release. The California Fire Code would also require measures for the safe storage and handling of hazardous materials.

As discussed in Section 7.9, *Hydrology and Water Quality*, in compliance with SCA HYD-2 and SCA HYD-3, construction contractors would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities according to the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment inspections, equipment and fuel storage; protocols for responding immediately to spills; and describe Best Management Practices (BMPs) for controlling site run-on and runoff.

In addition, the transportation of hazardous materials would be regulated by the U.S. Department of Transportation (USDOT), Caltrans, and the California Highway Patrol (CHP). Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of an accidental release.

Compliance with regulations described above is reinforced in the City's SCAs specific to hazardous materials. SCA HAZ-1, Hazardous Materials Related to Construction, identifies Best Management Practices during construction including practices for use, storage and disposal of chemical products and containers; management of fuel gas tanks, grease, and oils from construction equipment; compliance with local, regional, state and federal regulations concerning lead; and compliance with the City and applicable regulatory agencies' required steps and actions if suspected contamination is encountered during construction. SCA HAZ-2, Hazardous Building Materials and Site Contamination, requires the Project Applicant to document the presence or lack thereof of hazardous building or stored materials and specifications for the stabilization and/or removal of the identified materials in accordance with applicable laws and regulations. It requires a Phase I and, as needed a Phase II along with evidence of approved remedial action and required clearances by applicable local, state, or federal regulatory agency. Compliance with this SCA includes implementation of a City-approved Health and Safety Plan and construction Best Management Practices related to potential soil and groundwater hazards. The transportation, use, and storage of all hazardous materials involved with the Project (construction and operation) would be required to follow the applicable laws and regulations adopted to safeguard workers and the general public, including preparation of a Hazardous Materials Management Plan and Hazardous Materials Business Plan, as required by Alameda County and SCA HAZ-3, Hazardous Materials Business Plan.

Finally, in the event of a spill that releases hazardous materials at the project sites, a coordinated response would occur at the federal, state, and local levels, including the City of Oakland. The Oakland Fire Department is the local hazardous materials response team. In the event of a hazardous materials spill, the Oakland Police and Fire departments would be simultaneously notified and sent to the scene to respond and assess the situation.

The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would limit the potential for creation of hazardous conditions due to the use or accidental release of hazardous materials. Since development of the Project would be subject to the SCAs pertaining to the handling of hazardous materials related to construction activities and the remedial actions required when site contamination is encountered, consistent with the findings and conclusions of the 2014 LMSAP EIR, the potential impacts would be reduced to less-than-significant levels.

Hazardous Materials within a Quarter Mile of a School (Criterion 8b)

The project site is located adjacent to Laney College and within approximately 0.25 miles of several schools including Dewey Academy, La Escuelita Elementary School and Lincoln Elementary School. However, the Project would be required to comply with existing local regulations that require hazardous material handlers within 1,000 feet of a school or other sensitive receptor to prepare a Hazardous Materials Assessment Report and Remediation Plan.

Emergency Access Routes (Criteria 8c)

The Project would not significantly interfere with emergency response plans or evacuation plans. Construction in the urban Downtown setting may result in temporary road closures, which would require traffic control plans to ensure at least two emergency access routes are available for streets exceeding 600 feet in length, per the City of Oakland's Ordinances and General Plan Policies. In accordance with SCA TRA-1, Construction Activity in the Public Right-of-Way (Section 7.14, *Transportation and Circulation*), the Project would: (1) obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops; (2) submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit; and (3) repair any damage to the public right-of way, including streets and sidewalks, caused by project construction. As such, the Project would not permanently change the surrounding streets or roadways.

7.8.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not substantially increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to hazards and hazardous materials that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCA HAZ-1**, **Hazards Materials Related to Construction**; **SCA HAZ-2**, **Hazardous Building Materials and Site Contamination**; **SCA HAZ-3**, **Hazardous Materials Business Plan**; **SCA HYD-2**, **State Construction General Permit**; **SCA HYD-3**, **NPDES C.3 Stormwater Requirements for Regulated Projects**; and **SCA TRA-1**, **Construction Activity in the Public Right-of-Way** (see Attachment A), would be applicable to and would be implemented by the Project and would further ensure that potential impacts associated with hazards and hazardous materials would be less than significant. No mitigation measures are required.

7.9 Hydrology and Water Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Violate any water quality standards or waste discharge requirements; Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters; Create or contribute substantial runoff which would be an additional source of polluted runoff; Otherwise substantially degrade water quality; Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.	☒	☐	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted);	☒	☐	☐
c. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems; Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site	☒	☐	☐
d. Result in substantial flooding on- or off-site; Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows; Place within a 100-year flood hazard area structures which would impede or redirect flood flows; or Expose people or structures to a substantial risk of loss, injury, or death involving flooding.	☒	☐	☐

7.9.1 Previous CEQA Documents Findings

The Previous CEQA Documents found less-than-significant impacts related to hydrology or water quality, primarily given required adherence to existing regulatory requirements, many of which are incorporated in the City of Oakland's SCAs. The 2011 Renewal Plan Amendments EIR found less-than-significant effects regarding stormwater and 100-year flood hazard with implementation of applicable City of Oakland SCAs. The 1998 LUTE EIR acknowledged that areas considered under that EIR could potentially occur within a 100-year flood boundary. Adherence to existing regulatory requirements that are incorporated in the City of Oakland's SCAs would address potentially significant effects regarding flooding. No mitigation measures were warranted.

7.9.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that with implementation of SCAs impacts related to hydrology and water quality, groundwater, and flooding would be less than significant with development occurring under the LMSAP. No mitigation measures were necessary.

7.9.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Water Quality, Stormwater, and Drainages and Drainage Patterns (Criteria 9a and 9c)

The Lake Merritt Channel is located within 1,000 feet of the project site. The Project would include excavation and grading activities that could induce construction-related onsite soil erosion, and cause increased sediment in surface water runoff that could accumulate in downstream drainage facilities and interfere with flow and aggravate downstream flooding conditions that may exist and potentially increase sediment in the Lake Merritt Channel and ultimately the San Francisco Bay. SCA HYD-1, Erosion and Sedimentation Control Plan for Construction, is applicable to the Project and requires the Project Applicant to prepare and implement an Erosion and Sedimentation Control Plan. The Project would also be required to implement a Stormwater Pollution Prevention Plan (SWPPP) per SCA HYD-2, State Construction General Permit, which would include erosion and sediment control Best Management Practices (BMPs).

Construction activities would include excavation work which could require dewatering (removal of groundwater by pumping) in order to lower groundwater levels and dry the project site for construction. If dewatering methods are used on the project site, groundwater would be pumped out of the excavation to the surface and discharged, usually to either a sanitary sewer or storm drain. Water extracted during dewatering could contain contaminants, either from existing sources or construction equipment, or could become sediment laden from construction activities. However, the requirements of the Construction General Permit issued by the State Water Resources Control Board (SWRCB) per SCA HYD-2, State Construction General Permit, would minimize the amount of sediment and other pollutants being discharged in stormwater runoff and would reduce potential impacts to a less-than-significant level. In addition, if the Project were to include architectural copper, implementation of SCA HYD-4, Architectural Copper, would reduce potential water quality impacts in accordance with Provision C.13 of the Municipal Regional Stormwater Permit issued under the NPDES. Therefore, construction activities associated with the Project would have a less-than-significant impact on water quality during construction.

The Project would construct two mixed-use buildings and a paseo on Block 1, resulting in an increase in approximately 4,767 square feet of impervious surfaces compared to existing conditions.[35] While the Project would result in an increase in impervious surface on Block 1, the Project would not substantially alter the existing drainage pattern on Block 1. Under existing conditions, stormwater on Block 1 drains to an existing storm drain inlet at the southeastern corner of the parking lot, via sheet flow, which is then conveyed via an existing storm drain pipe to the City's storm drain system.[36] The Project would collect and manage stormwater on-site, eventually discharging to the City's existing storm drain system. Block 2 is currently entirely covered with a surface parking lot and the 4-story, Metro Center office building. Therefore, the Project would not increase existing area of impervious surface on Block 2 since the new buildings and pavement (sidewalks) would cover the entire site, and not significantly alter existing flows.

To minimize impact on the existing storm drain system, the Project would reduce the volume and flow of Project runoff by using media filter vaults and detention pipe, improving the drainage conditions from existing. Additionally, detention measures within the buildings and plaza areas would further reduce peak stormwater flows. Further, since the Project would create or replace 10,000 square feet or more of new or existing impervious surface area, the Project would be required to comply with SCA HYD-3, NPDES C.3 Stormwater Requirements for Regulated Projects, relating to water quality and stormwater runoff during operation.

The Project would also be subject to SCA UTIL-6, Storm Drain System, which requires, to the maximum extent practicable, a peak stormwater runoff reduction from the project site by at least 25 percent compared to the pre-Project condition (see Section 7.15, *Utilities*). Due to the proposed zero-lot line building construction, which limits the available area for landscaping and at-grade stormwater detention measures, meeting the full 25 percent reduction is not practical for the Project. Based on discussions between the City of Oakland Public Works Staff and the Project Applicant, it was agreed that a 10 percent peak flow reduction is a realistic goal that should be applied to the Project.[37]

Use of Groundwater (Criterion 9b)

Groundwater is generally located 10 to 13 feet below the ground surface on Block 1, and approximately 13 to 15 feet below the ground surface on Block 2.[38] There are no groundwater supply wells at the project site. Potable water is supplied by the East Bay Municipal Utility District ("EBMUD"). The groundwater beneath the project site is generally not considered potable, is not utilized in the public drinking water supply or other municipal uses, and is not a source for agricultural uses. Construction activities would include excavation work at the project site which would require dewatering in order to lower groundwater levels and dry the project site for

[35] BKF Engineers, 2020. *Stormwater Management Plan and Hydrology & Hydraulics Report for Lake Merritt Bart Development, City of Oakland, Alameda County, California*, April 17, 2020.

[36] BKF Engineers, 2020. *Stormwater Management Plan and Hydrology & Hydraulics Report for Lake Merritt Bart Development, City of Oakland, Alameda County, California*, April 17, 2020.

[37] BKF Engineers, 2020. *Stormwater Management Plan and Hydrology & Hydraulics Report for Lake Merritt Bart Development, City of Oakland, Alameda County, California*, April 17, 2020.

[38] Langan, 2020. *Preliminary Geotechnical Investigation, Lake Merritt BART Redevelopment, Oakland, California, Project No. 750650001*, January 23, 2020.

construction. However, dewatering would not deplete the groundwater supplies from the deeper recharge areas beneath the project vicinity.

The Project would adhere to the City of Oakland's SCA GEO-1, Construction-Related Permit(s), that address all applicable regulatory standards and regulations pertaining to remediation and grading and excavation activities. Therefore, the Project would have a less-than-significant impact on water quality or groundwater supplies, as identified in the 2014 LMSAP EIR and the Previous CEQA Documents.

Flooding and Substantial Risks from Flooding (Criteria 9d)

The project site is not located in either a 100-year or 500-year flood boundary.[39] Therefore, the Project would not place housing or other structures within a 100-year flood hazard area. In addition, the project site is not located near a levee or a dam. Flooding from tsunamis would affect low-lying areas along the Oakland Estuary and San Francisco Bay, but the island of Alameda would shelter inland areas such as the project site. Therefore, the Project would not result in a significant impact with respect to flood-related risks.

7.9.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not result in any new or more severe significant impacts related to hydrology and water quality, groundwater, or flooding than those identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCA HYD-1**, **Erosion and Sedimentation Control Plan for Construction**; **SCA HYD-2**, **State Construction General Permit**; **SCA HYD-3**, **NPDES C.3 Stormwater Requirements for Regulated Projects**; **SCA HYD-4, Architectural Copper**; **SCA GEO-1, Construction-Related Permit(s)**; and **SCA UTIL-6**, **Storm Drain System** (see Attachment A) would be applicable to and would be implemented by the Project and would further ensure that potential impacts to hydrology and water quality would be less than significant. No mitigation measures are required.

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[39] Federal Emergency Management Agency (FEMA), National Flood Insurance Program Flood Insurance Rate Map, Alameda County, Panel 67 of 725, Map Number 06001C0067H, Map revised December 21, 2018.

7.10 Land Use, Plans, and Policies

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Physically divide an established community;	☒	☐	☐
b. Result in a fundamental conflict between adjacent or nearby land uses; or	☒	☐	☐
c. Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment.	☒	☐	☐

7.10.1 Previous CEQA Documents Findings

The 2011 Renewal Plan Amendments EIR found less-than-significant impacts related to land use, plans, and policies, and no mitigation measures were warranted. The 1998 LUTE EIR, however, identified a significant and unavoidable effect associated with inconsistencies with policies in the Clean Air Plan (resulting from significant and unavoidable increases in criteria pollutants from increased traffic regionally). The 1998 LUTE EIR identified mitigation measures, which largely align with current City of Oakland SCAs involving Transportation Demand Management (TDM), and which apply to all projects within the City of Oakland.

7.10.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that impacts related to land use and planning would be less than significant with development occurring under the LMSAP. No mitigation measures or City of Oakland SCAs were required for this topic. Compliance with LUTE Policies Dl0.2, N5.2, and N8.2 would ensure that development under the LMSAP would not conflict with surrounding land uses; or with existing plans, policies, and regulations adopted for the purpose of mitigating an environmental effect. The project site is identified as an opportunity site, or a site most likely to redevelop, in the LMSP, proposed for active ground-floor uses and as a potential site for open space contribution.

7.10.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Division of Existing Community, Conflict with Land Uses, or Land Use Plans (Criteria 10a through 10c)

The project site is located within the LMSAP area, which is characterized mostly by a highly urbanized mix of commercial, residential, and institutional land uses bordered to the south by an elevated freeway. The land uses immediately surrounding the project site include institutional, recreational, retail, office, light industrial, and single and multi-family residential land uses. The Project's residential units, office and community space, ground-floor retail and restaurant uses, child care center, and new public open space would be consistent and compatible with the surrounding uses. Additionally, the proposed public paseo, ground-floor retail and restaurant uses, and BART plaza improvements would provide connectivity and enhanced neighborhood amenities to the area surrounding the Lake Merritt BART Station. Therefore, the Project would not physically divide an established community. As discussed in Section 7.2, *Aesthetics, Shadow, and Wind*, the Project would not result in a significant impact with respect to aesthetics (views) or shadows. The Project also would not result in a fundamental conflict with adjacent land uses, including adjacent historical resources.

The Project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project site. The Project is located within the LMSAP, which was adopted in 2014. The LMSAP aims to provide a roadmap for future development with the goal of increasing employment opportunities, accommodating future population growth, and encouraging local and regional transit-oriented development. The project site is identified as an opportunity site, or a site most likely to redevelop, in the LMSP, proposed for active ground-floor uses and as a potential site for open space contribution. The Project would include community-serving retail space comprised of a restaurant and food stalls fronting a publicly accessible paseo running through Block 1. Block 2 would also contain ground floor retail space. The LMSAP also includes affordable housing goals to promote new housing units within the LMSAP area for individuals and families of all sizes and income levels. Approximately 233 of the 557 residential units proposed would be below market-rate units, consistent with LMSAP affordable housing goals.

The LMSAP also contains policies specific to the project site. The Project would be consistent with LMSAP Land Use Policy LU-26, which encourages high intensity development on the BART-owned blocks to support transit-oriented development, as the Project would construct new mixed-use mid- and high-rise buildings. LMSAP Land Use Policy LU-27 encourages development on the Lake Merritt BART blocks to constitute a benefit to the existing and future community and incorporate public amenities. LMSAP Land Use Policy LU-29 dictates that development on the Lake Merritt BART blocks should act as a catalyst project that creates an active neighborhood hub and serves as part of activated spines along 8th, 9th, and Oak Streets, connecting the heart of Chinatown, the Lake Merritt BART Station, and Laney College. The Project's ground-floor community-serving retail space, paseo open space, and BART plaza improvements would be consistent with the intent of LMSAP Policies LU-27 and LU-29 to provide a community benefit and active neighborhood hub. Also, consistent with LMSAP Streetscape and Circulation Policy C-50, the Project would not replace BART parking and improvements to pedestrian, bicycle, bus access to the BART station would ensure that no ridership is lost. As discussed in Section 7.14, *Transportation and Circulation*, on-site transportation improvements proposed by the Project

Applicant are intended to complement surrounding transportation infrastructure improvements planned for the LMSAP area, consistent with LMSAP Policies LU-29 and C-50. Therefore, the Project would be consistent with the intent and desired land use character identified in the LMSAP.

The Project would redevelop an existing surface parking lot and office building located wholly within the Central Business District (CBD) General Plan land use designation, and partially within two zoning designations. Block 1 is zoned Lake Merritt Station Area District Pedestrian Commercial (D-LM-2) and Block 2 is split zoned, located partially within the D-LM-2 zone and partially within the Lake Merritt Station Area Flex Zone (D-LM-4). The intent of the D-LM-2 Zone is to create, maintain, and enhance areas of the Lake Merritt Station Area Plan District for ground-level, pedestrian-oriented, active storefront uses, with upper story spaces intended to be available for a wide range of office and residential activities. The intent of the D-LM-4 Zone is to designate areas of the Lake Merritt Station Area Plan District appropriate for a wide range of upper story and ground level residential, commercial, and compatible light industrial activities. Blocks 1 and 2 are also located within the LM-275 Height/Bulk/Intensity Area, which allows a maximum height of 275 feet, and an 85-foot maximum allowable building base height with a Conditional Use Permit. As the Project would develop two 83-foot tall mid-rise buildings and two 275-foot tall high-rise buildings, containing residential rental units, office space, ground-floor commercial space, and a new public open space, the Project would be consistent with the general plan and zoning designations.

7.10.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not result in any new or more severe significant impacts related to land use, plans, and policies than those identified in the 2014 LMSAP EIR or the Previous CEQA Documents. The 2014 LMSAP EIR did not identify any mitigation measures related to land use, and no City of Oakland SCAs directly addressing land use and planning apply to the Project.

7.11 Noise

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts. During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard; Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code Section 8.18.020) regarding persistent construction-related noise;	☒	☐	☐
b. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise;	☒	☐	☐
c. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3-dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project);	☒	☐	☐
d. Expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24); Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval (see Figure 1); Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]); or	☒	☐	☐
e. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).	☒	☐	☐

7.11.1 Previous CEQA Documents Findings

The 2011 Renewal Plan Amendments EIR identified less-than-significant effects related to roadway noise and found construction and operational noise impacts would be mitigated to a less-than-significant level with implementation of SCAs. The 1998 LUTE EIR identified mitigation measures to address potential noise conflicts between different land uses. Regarding construction noise, the 1998 LUTE EIR identified a significant and unavoidable construction noise and vibration impact in Downtown, even after the implementation of mitigation measures.

7.11.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that with implementation of SCAs, construction and operation period noise would be less than significant with development occurring under the LMSAP. The 2014 LMSAP EIR determined that while activities occurring under the Plan could expose residential uses near construction to noise levels exceeding the General Plan standard of 80 and 85 dBA, construction of individual development projects implemented under the LMSAP would be temporary in nature and that associated impacts would be less than significant with implementation of applicable SCAs.

The 2014 LMSAP EIR also determined that operation-period noise associated with projects developed under the Plan would be less than significant, and that implementation of applicable SCAs would ensure that operation noise is reduced to a less-than-significant level.

7.11.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

A long-term noise measurement was conducted on the project site in November of 2020. The monitoring locations were on the balcony of the existing building at 101 8th Street. Noise levels at this location are presented in **Table NOI-1**.

TABLE NOI-1
MONITORED NOISE LEVELS IN THE VICINITY OF THE PROJECT SITE

Measurement Location		Time Period	Average Ldn or Leq	Audible Noise Sources
Long-Term Measurements (24 hours or more)				
LT-1	Second story balcony of 101 8th Street.	Friday 11/18/20 Daytime: Evening: Nighttime: 24-hour Ldn:	 69 dBA (Leq) 66 dBA (Leq) 64 dBA (Leq) 67 dBA (Ldn)	Vehicle traffic on Oak Street and 7th Street and I-880.

SOURCE: ESA, 2020.

Construction and Operational Noise and Vibration, Exposure of Receptors to Noise (Criteria 11a, 11b, and 11e)

Construction Noise

Construction activities for the Project would be expected to occur over approximately 30 months for Block 1 followed by approximately 37 months for Block 2 and would entail excavation and shoring, foundation and below-grade construction, and construction of the building and finishing interiors. Implementation of applicable City of Oakland SCAs would minimize construction noise impacts by limiting hours of construction activities, by requiring best available noise control technology and notification of any local residents of construction activities, and by tracking and responding to noise complaints. These SCAs include SCA NOI-1, Construction Days/Hours; SCA NOI-2, Construction Noise; SCA NOI-3, Extreme Construction Noise; SCA NOI-4, Construction Noise Complaints. As a result, the construction noise impacts of the Project would be less than significant with implementation of applicable City of Oakland SCAs, as identified for the 2014 LMSAP EIR.

Operational Noise

The Project would include mechanical equipment standardized for noise reduction, as was assumed in the 2014 LMSAP EIR. The Project also would include two emergency generators. Development of the Project would incorporate all applicable SCAs, including SCA NOI-5, Exposure to Community Noise and SCA NOI-6, Operational Noise, to ensure a less-than-significant impact with respect to noise from stationary sources on the project site.

Traffic Noise (Criterion 11c)

For the purposes of assessing increased roadway noise as a result of the Project, noise levels were determined for this analysis using algorithms of the Federal Highway Administration ("FHWA") Traffic Noise Prediction Model. The roadway segments analyzed and the results of the noise increases determined by modeling are shown in **Table NOI-2**, below.

As shown in Table NOI-2, the increase in traffic noise from the Existing Plus Project scenario compared to the Existing scenario would increase peak hour noise levels by less than 5.0 dBA for all roadway segments. The roadway segment of 8th Street between Madison Street and Oak Street would experience the greatest increase in traffic noise, which would be 1.2 dBA above existing ambient noise levels. However, as the noise increase would not exceed 5.0 dBA, the noise impact on this roadway segment is not considered to be significant. Overall, traffic noise impacts associated with the Project at all analyzed roadway segments in the project vicinity would be less than significant at the project-level.

Cumulative Noise

Table NOI-2 shows that the increase in traffic between the Cumulative Plus Project (2040) scenario and Cumulative No Project (2040) would increase peak hour noise levels by less than 3.0 dBA at all roadway segments. Thus, the cumulative roadway noise impact would be less than significant.

TABLE NOI-2
PEAK-HOUR TRAFFIC NOISE LEVELS IN THE VICINITY OF THE PROJECT

Roadway Segment[a,b]	(A) Existing	(B) Existing Plus Project	(B-A) Difference between Existing Plus Project and Existing[c]	(C) Cumulative No Project (2035)	(D) Cumulative Plus Project (2035)	(D-A) Difference between Cumulative Plus Project and Existing	(D-C) Difference between Cumulative Plus Project and Cumulative No Project[d]
7th Street West of Madison Street	65.3	65.5	0.2	66.8	66.9	1.6	0.1
7th Street East of Oak Street	66.0	66.2	0.2	67.5	67.6	1.6	0.1
8th Street West of Madison Street	62.0	63.2	1.2	63.5	64.4	2.4	0.9
8th Street East of Oak Street	61.4	61.9	0.5	62.9	63.2	1.8	0.3
9th Street West of Madison Street	60.3	60.6	0.3	61.7	62.0	1.7	0.3
9th Street East of Oak Street	59.9	60.4	0.6	61.3	61.8	1.9	0.5
Madison Street North of 8th Street	63.3	63.4	0.1	64.8	64.9	1.6	0.1
Madison Street South of 7th Street	63.3	63.5	0.2	64.8	65.0	1.7	0.2
Oak Street North of 9th Street	63.7	63.8	0.1	65.3	65.3	1.6	0
Oak Street South of 7th Street	62.5	62.5	0	64.0	64.0	1.5	0
Fallon Street North of 9th Street	60.8	61.1	0.3	62.3	62.5	1.7	0.2
Fallon Street South of 8th Street	60.2	60.5	0.3	61.7	62.0	1.8	0.3

a Road center to receptor distance is 15 meters (approximately 50 feet) for all roadway segments. Noise levels were determined using the algorithms of the Federal Highway Administration (FHWA) Traffic Noise Prediction Model.
b The analysis considered the vehicle mix based on – cars 97 percent, medium trucks two percent, and heavy trucks one percent, consist with Caltrans data for the Webster Street tunnel and San Pablo Avenue. Traffic speeds for all vehicle classes were set at 25 mph, consistent with Chapter 10.20 of the Oakland Municipal Code.
c Considered significant if the incremental increase in noise from traffic is greater than the existing ambient noise level by 5.0 dBA Leq, per City of Oakland, CEQA Thresholds/Criteria of Significance Guidelines.
d Considered a cumulatively considerable contribution to a significant noise increase if the incremental increase in noise is greater than 3 dBA.

SOURCE: ESA, 2020.

The City also considers cumulative noise from all sources—mobile and stationary. The project site is located approximately 80 feet from the nearest sensitive receptors across Madison and Oak Streets and 70 feet from receptors across 7th, 8th, and 9th Streets. The Project would generate noise from heating, ventilating, and air conditioning (HVAC) mechanical equipment. HVAC equipment would operate within the restrictions of the City's Noise Ordinance. Chapter 17.120.050 of the City of Oakland Planning Code specifies the maximum sound level received at residential, public open spaces and commercial land uses. This restriction can be used in combination with the predicted roadway noise level increase presented in Table NOI-2 to estimate a worst-case prediction of cumulative noise increase from both stationary and roadway noise sources. **Table NOI-3** presents the cumulative noise increase at the closest existing sensitive receptor across 8th Street from the project site from both roadway and stationary sources. These noise levels reflect evening peak hour conditions which are when peak traffic contributions would occur. Stationary source noise levels are considered in terms of the L_{33} (the noise levels exceeded 20 minutes of a one-hour period) as this is the noise descriptor of the City's noise ordinance which best lends itself to addition to roadway noise estimates which are calculated in terms of a peak-hour hourly average. The roadway noise contribution is assumed to occur from the greatest cumulative increase analyzed in Table NOI-2. This analysis uses the existing monitored noise level as a baseline for comparison, unlike the analysis in Table NOI-2, which solely analyzes modeled traffic volumes, because this cumulative analysis considers multiple sources, not just vehicle traffic.

TABLE NOI-3
PEAK-HOUR CUMULATIVE NOISE LEVELS AT SENSITIVE RECEPTORS IN THE PROJECT AREA

Location	(A) Monitored Noise Level (Leq, dBA)	(B) Stationary Source Restriction (L_{33}, dBA)	(C) Cumulative Roadway only Noise Level Increase(Leq)	(D) (A+B)+C Resultant Cumulative Noise Level (Leq)	(D-A) Increase in Noise Level over Existing Monitored
655 8th Street	66	60	2.4	69.4	3.4

SOURCE: ESA, 2020.

A cumulative noise increase of less than 5.0 dBA over existing monitored conditions is predicted to occur at existing sensitive receptors in the project vicinity. This determination assumes stationary source operating at an adjacent property at the maximum property line limit allowed by the noise ordinance. When the contribution from maximum allowable stationary source noise is added to cumulative traffic increase, and the Project's contribution from both stationary and mobile sources is compared to existing monitored noise levels, the cumulative increase would be 3.4 dBA and would be considered less-than-significant.

7.11.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and Previous CEQA Documents, implementation of the Project would not result in any new or more severe significant impacts related to noise than those identified in the 2014 LMSAP EIR or the Previous CEQA Documents. Implementation of **SCA NOI-1, Construction Days/Hours; SCA NOI-2, Construction Noise; SCA NOI-3, Extreme Construction Noise; SCA NOI-4, Construction Noise Complaints; SCA NOI-5, Exposure to Community Noise**; and **SCA NOI-6, Operational Noise** (see Attachment A)**,** would be applicable and would be implemented with the Project, and would ensure that noise-related impacts associated with the Project would be less than significant.

7.12 Population and Housing

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed;	☒	☐	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element; or Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.	☒	☐	☐

7.12.1 Previous CEQA Documents Findings

The Previous CEQA Documents, including the 2011 Renewal Plan Amendments EIR, found less-than-significant impacts related to population and housing, as well as employment. The 1998 LUTE EIR identified mitigation measures to address unanticipated employment growth (compared to regional ABAG projections), and no other mitigation measures were warranted.

7.12.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that impacts related to population and housing would be less than significant with development occurring under the LMSAP. No mitigation measures or SCAs would be required for this topic. The 2014 LMSAP EIR assumes that associated growth in the number of households and population occurring from development under the LMSAP would be in line with regional growth projections, including ABAG's 2009 growth forecast for 2035, and would not result in unplanned population growth.

7.12.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Population Growth and Displacement of Housing and People (Criteria 12a and 12b)

There are currently approximately 275 employees on the project site within the existing office building on Block 2.[40] The Project would result in an estimated 1,309 permanent employees on the site, or a net increase of 1,033 employees on the project site.[41] Construction of the Project also would involve temporary employees. The Project would also introduce up to 557 units and approximately 1,131 new residents.[42] However, the additional approximate 1,131 residents and net increase of 1,033 employees would not result in substantial growth beyond what was projected in the overall development program in the 2014 LMSAP EIR. The project site currently contains a surface parking lot, BART entrances, and the Metro Center office building, hence the Project would not displace any housing or people necessitating the construction of replacement housing.

7.12.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, the Project would not result in any new or more severe significant impacts related to population and housing than those identified in the 2014 LMSAP EIR or the Previous CEQA Documents. The 2014 LMSAP EIR did not identify any mitigation measures related to population and housing, and none would be required for the Project. Nonetheless, the City's required **SCA POP-1**, **Jobs/Housing Impact Fee** (see Attachment A) applies to all projects involving construction of 25,000 square feet or more of new office space, including the Project, and **SCA POP-2**, **Affordable Housing Impact Fee** (see Attachment A) would further reduce less-than-significant effects. Overall, the Project's potential impacts to population and housing would be less than significant. No mitigation measures are required.

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[40] The number of employees on site was estimated prior to 2020 Shelter-in-place orders.

[41] This analysis assumes an employment density of one job per 400 square feet of office space and one job per 350 square feet of retail space, as established in the certified Lake Merritt Station Area Plan EIR (Table ES-1).

[42] According to Table ES-1 in the 2014 LMSAP EIR, the LMSAP population analysis employed a factor of approximately 2.03 persons per residential unit.

7.13 Public Services, Parks and Recreation Facilities

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: • Fire protection; • Police protection; • Schools; or • Other public facilities.	☒	☐	☐
b. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or Include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.	☒	☐	☐

7.13.1 Previous CEQA Documents Findings

The 2011 Renewal Plan Amendments EIR found less-than-significant impacts related to public services and recreational facilities; no mitigation measures were warranted nor City of Oakland SCAs identified. The 1998 LUTE EIR identified a significant and unavoidable impact for fire safety, with mitigation measures pertaining to the North Oakland Hills area; the 1998 LUTE EIR also identified a significant and unavoidable impact regarding increased student enrollment, particularly in Downtown (and the Waterfront), and identified mitigation measures that would not reduce the effect to a less-than-significant level. Thus, the impact was significant and unavoidable.[43]

7.13.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR determined that the increase in demand for public services (i.e., fire, police, and schools) and park and recreation services from development under the LMSAP would be less than significant. The Oakland Police Department and Fire Department would adjust service capacity as needed and the City is responsible for coordinating service provisions to adjust to the expected increase in demand for these services. New development, including the Project, is required to adhere to appropriate building and fire code requirements that would be incorporated

[43] The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under *Public Services*. These topics are addressed in this document under *14. Utilities and Service Systems*, consistent with current City approach.

into project construction. The Plan Area is exceptionally well-served by libraries, and the LMSAP includes the creation of new parks and open spaces, and improved access to the regional parks system. Potential impacts to public services would be less than significant. No mitigation measures or SCAs were required regarding recreation.

7.13.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Public Services and Parks and Recreation (Criteria 13a and 13b)

The Project would generate demand on public services typical of a mixed-use building containing up to 557 residential units, 495,333 square feet of office space, 6,200 square feet of daycare and 18,492 square feet of ground-floor commercial space. However, the development would occur in an urban area already served by public services and recreation facilities, and recent CEQA analyses have consistently determined that the anticipated growth would not impose a burden on existing public services that would result in a significant impact.

Compliance with standard City practices would further ensure the less-than-significant impact. These included City practices and requirements, such as the Oakland Fire Services' review of Project plans, and project applicants' required contributions to school impact fees to offset any impacts to school facilities. City of Oakland SCAs incorporate most of the standard practices and requirements to address potential public services and park and recreation facilities impacts. The Project would comply with the requirements of the City of Oakland Capital Improvement Fee Ordinance (chapter 15.74 of the Oakland Municipal Code) by incorporating City of Oakland SCA PUB-1, Capital Improvements Impact Fee, to address potential public services and park and recreation facilities impacts. The City's required SCA REC-1, Access to Parks and Open Space, applies to all projects involving new construction adjacent to an existing open space such as parks, lakes, or the shoreline. Adherence to this SCA would further reduce less-than-significant effects to recreation facilities, by requiring the Project Applicant to enhance bicycle and pedestrian access from the project site and adjacent areas to Madison Square Park. In addition, adherence to the General Plan's Open Space, Conservation and Recreation Element policies 3.1, 3.3, and 3.10 would reduce potential impacts to recreational facilities. Any increases in need for police protection, fire protection, schools, or other public facilities would be mitigated by adherence to General Plan policies N.12.1, N.12.2, N.12.5, FI-1, and FI-2.

7.13.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not result in any new or more severe significant impacts related to public services and parks and recreation services than those identified in the 2014 LMSAP EIR and the Previous CEQA Documents. **SCAs PUB-1, Capital Improvements Impact Fee**; and **REC-1**, **Access to Parks and Open Space** (see Attachment A) would be applicable to and would be implemented by the Project and would further ensure that potential impacts related to public services, parks and recreation facilities would be less than significant. No mitigation measures are required.

7.14 Transportation and Circulation

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay)	☒	☐	☐
b. Cause substantial additional vehicle miles traveled (VMT) per capita, per service population, or other appropriate efficiency measure	☒	☐	☐
c. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network.	☒	☐	☐

7.14.1 Previous CEQA Documents Findings

The Prior EIRs considered for this analysis identified significant and unavoidable impacts regarding intersection and/or roadway segment operations. Various mitigation measures and City of Oakland SCAs are identified (except in the 1998 LUTE EIR, which does not identify SCAs). Other transportation/circulation effects identified in each document are reduced to a less than significant level with adherence to City of Oakland SCAs or mitigation measure, as follows.

The 1998 LUTE EIR identified significant and unavoidable impacts regarding degradation of the level of service (LOS) for several roadway segments citywide. A mitigation measure was identified for one Downtown intersection to reduce the intersection operations impacts to less than significant. All other topics were found less than significant. The 1998 LUTE EIR did not identify an impact at the intersections that are affected by the Project.

The 2011 Renewal Plan Amendments EIR identified significant and unavoidable impacts to roadway segment operations as well as railroad crossing safety, after the implementation of identified mitigation measures. The 2011 Renewal Plan Amendments EIR did not identify an impact in the area affected by the Project.

7.14.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR evaluated 45 intersections and 10 freeway segments within the vicinity of the LMSAP Area (including within the City of Alameda) for potential impacts. The thresholds of significance for the 2014 LMSAP EIR were based on vehicle level of service (LOS).

Under Existing Plus LMSAP Project conditions, significant LOS impacts at a total of seven intersections were identified during one or both peak hours. Impacts at three of these intersections would be reduced to a less-than-significant level with implementation of the recommended mitigation measures. However, impacts to the First Avenue/International Boulevard, Oak Street/

10th Street, Oak Street/Sixth Street, and Jackson Street/Fifth Street intersections would be significant and unavoidable. Under Existing Plus LMSAP Project conditions, impacts to the I-880 freeway segment between Oak and Fifth Streets would be significant and unavoidable. In addition, under Existing Plus LMSAP Project conditions, impacts related to pedestrian circulation at the Constitution Way/Marina Village Parkway, and Constitution Way/Atlantic Avenue intersections would be significant and unavoidable because these intersections are in the City of Alameda and the City of Oakland does not have the authority to construct recommended improvements.

Under Interim 2020 Plus LMSAP Project conditions, significant unavoidable impacts were identified at a total of three intersections, including Jackson Street/Sixth Street, Oak Street/Sixth Street, and Oak Street/Fifth Street.

Under Cumulative 2035 Plus LMSAP Project conditions, significant unavoidable impacts were identified at a total of 13 intersections including: Madison Street and 14th Street; Madison Street/ 11th Street; Madison Street/10th Street; Oak Street/10th Street; Harrison Street/Eighth Street; Jackson Street/Eighth Street; Oak Street/Eighth Street; Jackson Street/Seventh Street; Oak Street/ Seventh Street; Fifth Avenue/Seventh Street/Eighth Street; Jackson Street/Sixth Street; Oak Street/ Sixth Street; and Oak Street/Fifth Street. In addition, under Cumulative 2035 Plus LMSAP Project conditions, impacts to the segment of Oak Street between 2nd Street and Embarcadero would also be significant and unavoidable.

All the mitigation measures identified in the 2014 LMSAP EIR are included in the citywide Transportation Impact Fee (TIF), which will be used to fund the implementation of these mitigation measures.

Several SCAs related to transportation and circulation were identified as required to be implemented for projects developed under the LMSAP.

7.14.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Conflicts with Plans, Ordinances, or Policies Relating to Safety, or Performance of the Circulation System (Criterion 14a)

The Project is consistent with applicable plans, ordinances, and policies, and would not cause a significant impact by conflicting with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile LOS or other measures of vehicle delay).

In accordance with SCA TRA-1, Construction Activity in the Public Right-of-Way, the Project would: (1) obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops; (2) submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit; and (3) repair any damage to the public right-of way, including streets and sidewalks, caused by project construction. SCA TRA-5, Transportation Impact Fee, would ensure compliance with the requirements of the City of Oakland Transportation Impact Fee Ordinance (chapter 15.74 of the Oakland Municipal Code). SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure, would also be applicable to the Project and would require that PEV-ready and PEV-capable parking spaces per the requirements of Chapter 15.04 of the Oakland Municipal Code are included in Project plans, and that the plans show the location of future accessible EV parking spaces as required under Title 24, Chapter 11B, Table 11B-228.3.2.1.

The LUTE, as well as the City's Public Transit and Alternative Mode and Complete Streets policies, states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. The Project would encourage the use of non-automobile transportation modes by providing a mix of uses with little parking in a dense, walkable urban environment that is well-served by local and regional transit.

The Project is consistent with both the City's 2017 Pedestrian Master Plan Update ("Oakland Walks!") and the 2019 Bicycle Master Plan ("Let's Bike Oakland") as it would not make major modifications to existing pedestrian or bicycle facilities in the surrounding areas and would not adversely affect installation of future facilities. In addition, SCA TRA-2, Bicycle Parking, would be applicable to the Project and would ensure that the Project complies with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code).

The LMSAP identifies the conversion of several corridors in the Project vicinity, including Madison, Oak, and 9th Streets adjacent to the Project, from one-way to two-way operations. The Project would not make major modifications to the public right-of-way to prevent the future conversion of these corridors to two-way operations. Therefore, the Project is consistent with the LMSAP.

The Project would also implement SCA TRA-3, Transportation Improvements, which would include the recommended on- and off-site transportation-related improvements contained within the Transportation Impact Review (TIR) for the Project (see Appendix E). These improvements would not only benefit the Project residents, workers, and visitors, but also residents, workers, and visitors in the areas surrounding the project site, including BART riders.

The off-site transportation improvements included in the Project TIR are consistent with the City's adopted plans, ordinances, and policies relating to safety and performance of the circulation system because they improve the pedestrian, bicycle, and transit environment in the Project vicinity.

Further, because the Project would generate more than 50 peak hour trips, the Project is required to prepare and implement a Transportation and Parking Demand Management (TDM) Plan to satisfy SCA TRA-4, Transportation and Parking Demand Management. The TDM Plan includes on-going operational strategies, as well as infrastructure improvements including the ones described above, that encourage the use of non-automobile travel modes (see Appendix F). The TDM Plan also includes annual monitoring requirements because the Project would generate more than 100 peak hour trips.

The project site is located within the LMSAP area and as described below, the Project is consistent with the 2014 LMSAP EIR.

Overall, the Project would not conflict with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system. This is a less-than-significant impact; no mitigation measures are required.

Consistency with the 2014 LMSAP EIR

The following analysis supports the conclusion that the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR, providing the basis for use of an Addendum pursuant to CEQA Guidelines Section 15164. The project site is located within the LMSAP area and the 2014 LMSAP EIR assumed the redevelopment of the two blocks that would be redeveloped by the Project. As noted in the 2014 LMSAP EIR, the Development Program represents the reasonably foreseeable development expected to occur in the next 20 to 25 years in the Plan area. The Specific Plan and the EIR intend to provide flexibility in the location, amount, and type of development. Thus, as long as the trip generation for the overall Plan area remains below the levels estimated in the EIR, the traffic impact analysis presented in the EIR continues to remain valid. Trip generation for the Project and the LMSAP are discussed below.

Project Trip Generation

Table TRA-1 summarizes the estimated number of vehicles that would likely access the Project on a typical weekday (trip generation). Appendix E provides the detailed trip generation calculations and assumptions.

TABLE TRA-1
PROJECT TRIP GENERATION SUMMARY

Project[1]	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Block 1	1,380	24	59	83	65	47	112
Block 2	2,750	208	61	269	75	232	376
Total	**4,130**	**233**	**120**	**352**	**140**	**279**	**419**

1 See Appendix E for detailed calculations.

SOURCE: Fehr & Peers, 2020.

Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual* (10th Edition) was used as a starting point to estimate the vehicle trip generation for all the Project uses. The ITE data is based on data collected at mostly single-use suburban sites where the automobile is often the only travel mode. However, the project site is in a dense, mixed-use urban environment where many trips are walk, bike, or transit trips. Since the Project is adjacent to the Lake Merritt BART Station, the City of Oakland's *Transportation Impact Review Guidelines* (TIRG, April 14, 2017) recommends a 47-percent reduction from the ITE-based trip generation to account for non-automobile trips. This reduction is based on Census commute data for Alameda County from the 2014 5-Year Estimates of the American Community Survey (ACS), which shows that the non-automobile mode share for areas less than 0.5 miles from a BART Station is about 46.9-percent.

The trip generation also accounts for the trips generated by the existing uses at the site that would be eliminated by the Project. The Project is estimated to generate about 4,130 daily, 352 AM peak hour, and 419 PM peak hour net new automobile trips.

The Project trip generation based on the TIRG process and presented in Table TRA-1 may be overestimating the actual automobile trips generated by the Project. The TIRG process estimates about 350 or more peak hour trips, while all the Project components combined would provide 408 off-street parking spaces. The peak hour vehicle trips generated by the Project's parking supply will be less than the estimated peak hour Project trip generation using the TIRG procedures. Thus, the Project trip generation presented in Table TRA-1 may be overestimating the automobile trips that would be generated by the Project. However, there are several other parking facilities in the vicinity of the Project that are open to the public and can be used by the Project residents, employees, and visitors if the Project parking facilities are at capacity. Although many of these public parking facilities currently operate at or near capacity on most weekdays, this analysis assumes that off-street parking facilities in the vicinity of the Project would be available to Project residents, employees, and visitors who choose to drive. Therefore, this analysis uses the TIRG-based trip generation to present a more conservative estimate of the automobile trips generated by the Project.

LMSAP Area Trip Generation

Since the approval of the 2014 LMSAP EIR, ten developments, including this Project, have been proposed and are in some stage of the City's approval process at this time. **Table TRA-2** summarizes the trip generation for these developments. The ten developments combined would generate about 16,642 daily, 1,147 AM peak hour, and 1,772 PM peak hour trips.

TABLE TRA-2
TRIP GENERATION FOR DEVELOPMENT PROJECTS WITHIN THE LMSAP AREA

Project Name	Daily	AM Peak Hour	PM Peak Hour
378 11th Street (Hampton Inn)[1]	580	44	46
250 14th Street[2]	738	52	68
226 13th Street[3]	1,285	83	118
301/385 12th Street (W12)[4]	2,202	64	198
Lakehouse Commons[5]	809	60	65
1314 Franklin Street[6]	3,070	242	264
325 7th Street[7]	1,198	95	93
0 Fallon Street[8]	180	11	14
Oakland Civic Auditorium[9]	2,450	144	487
Proposed Project[10]	4,130	352	419
Total Projects Trips	**16,642**	**1,147**	**1,772**
LMSAP Estimated Trip Generation	26,837	2,095	2,395
Percent Complete	*62%*	*55%*	*74%*

TABLE TRA-2 (CONTINUED)
TRIP GENERATION FOR DEVELOPMENT PROJECTS WITHIN THE LMSAP AREA

1 Source: *378 11th Street, Oakland, CA* letter (June 2015)
2 Source: *14th and Alice Residential Project – Transportation Assessment* (January 2016)
3 Source: 226 *13th Street Project –Transportation Assessment* (March 2016)
4 Source: *W12 Mixed-Use Project CEQA Analysis* (July 2016)
5 Source: *Lakehouse Commons Project – Transportation Assessment* (May 2016)
6 Source: *1314 Franklin Street Mixed-Use Project CEQA Analysis* (March 2017)
7 Source: *Modified 325 7th Street Project CEQA Analysis* (July 2017)
8 Estimated assuming that the project would consist of 58 residential units.
9 Source: *Oakland Civic Auditorium Rehabilitation Project CEQA Checklist* (February 2019)
10 See Table TRA-1 for more detail.

SOURCE: Fehr & Peers, 2020.

The combined trip generation is less than the total trip generation estimated in the 2014 LMSAP EIR. Since the Project uses are consistent with the assumptions in 2014 LMSAP EIR and the Project, combined with the other approved projects, would generate fewer automobile trips than assumed in 2014 LMSAP EIR, the Project would not result in additional impacts on traffic operations at the intersections analyzed in the 2014 LMSAP EIR.

Vehicle Miles Traveled (VMT) Assessment (Criterion 14b)

On September 21, 2016, the City of Oakland's Planning Commission directed staff to update the City of Oakland's California Environmental Quality Act (CEQA) Thresholds of Significance Guidelines related to transportation impacts in order to implement the direction from Senate Bill 743 (Steinberg 2013) to modify local environmental review processes by removing automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, as a significant impact on the environment pursuant to CEQA. The Planning Commission direction aligns with the guidance from the Governor's Office of Planning and Research (OPR) and the City's approach to transportation impact analysis, with adopted plans and policies related to transportation that promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diverse set of land uses. Consistent with the Planning Commission direction and the Senate Bill 743 requirements, the City of Oakland published the revised TIRG on April 14, 2017 to guide the evaluation of the transportation impacts associated with land use development projects.

Many factors affect travel behavior, including density of development, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development that is located at a great distance from other land uses, in areas with poor access to non-single occupancy vehicle travel modes generate more automobile travel compared to development located in urban areas, where a higher density of development, a mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, most of Oakland has lower VMT per capita and VMT per worker ratios than the nine-county San Francisco Bay Area region. Further, some neighborhoods of the City have lower VMT ratios than other areas of the City.

VMT Estimate

This analysis primarily uses the Metropolitan Transportation Commission (MTC) Travel Model to determine the impact of the project components on VMT. Oakland is geographically broken down into transportation analysis zones, or TAZs. The MTC Travel Model includes 116 TAZs within Oakland that vary in size from a few city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger geographic areas in lower density areas in the hills. TAZs are used in transportation planning models for transportation analysis and other planning purposes.

The MTC Travel Model is a model that assigns all predicted trips within, across, or to or from the nine-county San Francisco Bay Area region onto the roadway network and the transit system, by mode (single-driver and carpool vehicle, biking, walking, or transit) and transit carrier (bus, rail) for a particular scenario.

The travel behavior from the MTC Travel Model is modeled based on the following inputs:

- Socioeconomic data developed by the Association of Bay Area Governments (ABAG);
- Population data created using the 2000 US Census and modified using the open source PopSyn software;
- Zonal accessibility measurements for destinations of interest;
- Travel characteristics and automobile ownership rates derived from the 2000 Bay Area Travel Survey; and
- Observed vehicle counts and transit boardings.

The daily VMT output from the MTC Travel Model for residential and office uses comes from a tour-based analysis. The tour-based analysis examines the entire chain of trips over the course of a day, not just trips to and from the project site. In this way, all of the VMT for an individual resident or employee is included; not just trips into and out of the person's home or workplace. For example: a resident leaves her apartment in the morning, stops for coffee, and then goes to the office. In the afternoon she heads out to lunch, and then returns to the office, with a stop at the drycleaners on the way. After work, she goes to the gym to work out, and then joins some friends at a restaurant for dinner before returning home. The tour-based approach would sum the total amount driven and assign the daily VMT to this resident for the total number of miles driven on the entire "tour".

Based on the MTC Travel Model, the regional average daily VMT per capita is 15.0 under 2020 conditions and 13.8 under 2040 conditions, and the regional average daily VMT per worker is 21.8 under 2020 conditions and 20.3 under 2040 conditions.

Thresholds of Significance for VMT

The following are thresholds of significance related to substantial additional VMT:

- For residential projects, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15-percent.

- For office projects, a project would cause substantial additional VMT if it exceeds the existing regional VMT per worker minus 15-percent.
- For retail projects, a project would cause substantial additional VMT if it results in a net increase in total VMT.

Screening Criteria

VMT impacts would be less than significant for a project if any of the identified screening criteria are met:

1. Small Projects: The project generates fewer than 100 vehicle trips per day.
2. Low-VMT Areas: The project meets map-based screening criterion by being located in an area that exhibits VMT below threshold, or at least 15% below the regional average.
3. Near Transit Stations: The project is located in a Transit Priority Area or within a one-half mile of a Major Transit Corridor or Stop[44] and satisfies the following:
   - Has a Floor Area Ratio (FAR) of more than 0.75;
   - includes less parking for use by residents, customers, or employees of the project than other typical nearby uses, or less than or less than required by the City (if parking minimums pertain to the site) or allowed without a conditional use permit (if minimums and/or maximums pertain to the site); and
   - Is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the MTC).

VMT Impact Analysis Screening

The Project satisfies the Low-VMT Area (#2) and the Near Transit Stations (#3) screening criteria, as described below.

Criterion #1: Small Projects

As shown in Table TRA-1, the Project would generate more than 100 trips per day and therefore would not meet criterion #1.

Criterion #2: Low-VMT Area

Table TRA-3 describes the 2020 and 2040 VMT per worker and per resident for TAZ 946 in the MTC Model, the TAZ in which the Project is located, as well as the applicable VMT thresholds of 15-percent below the regional average. The 2020 and 2040 average daily VMT per worker and per resident in the Project TAZ is 15 percent or more below the regional averages.

[44] Major transit stop is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

TABLE TRA-3
DAILY VMT SUMMARY

Land Use	Bay Area				TAZ 946	
	2020		2040			
	Regional Average	Regional Average minus 15%	Regional Average	Regional Average minus 15%	2020	2040
Office (VMT per worker)[1]	21.8	18.5	20.3	17.3	18.5	16.7
Residential (VMT per resident)[2]	15.0	12.8	13.8	11.7	5.0	4.6

1 MTC Model results at www.arcgis.com/apps/webappviewer/index.html?id=98463b4f73ca43c5944a5c30648fd689 and accessed in May 2020.
2 MTC Model results at https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=5dac76d69b3d41e583882e146491568b and accessed in May 2020.

SOURCE: Fehr & Peers, 2020.

In addition, the Project would provide about 18,500 square feet of retail and a day-care center. Since the Project would provide less than 80,000 square feet of retail space, and consistent with the TIRG, the retail uses are considered local-serving and presumed not to generate substantial additional VMT. According to the TIRG, childcare uses should be treated as office for screening purposes. Since the VMT for the office components of the Project is below the regional average, as shown in Table TRA-3, the day-care component of the Project is also presumed not to generate substantial additional VMT. Therefore, it is presumed that the Project would not result in substantial additional VMT and Project impacts with respect to VMT would be less-than-significant.

<u>Criterion #3: Near Transit Stations</u>

The Project would be located adjacent to the Lake Merritt BART Station and is served by several frequent bus routes. The Project is located near frequent bus service within about 0.5 miles from 11th and 12th Streets (Routes 1T and 40 with 10-minute peak headways) and Madison Street (Routes 72, 72M, and 72R with 10- to 12-minute peak headways). The Project would satisfy Criterion #3 because it would meet all the following three conditions for this criterion:

- The Project has an FAR of 9.2, which is more than 0.75.
- According to the City of Oakland Municipal Code Section 17.116.060-080, the Project is not required to provide any minimum parking, and is limited to a maximum number of parking spaces (1.25 spaces per dwelling unit for residential uses, one space per 300 square feet of ground level commercial space and one space per 500 square feet of commercial space on other floors). Block 1 would be limited to 596 spaces and Block 2 would be limited to 1,156 spaces. Block 1 of the Project would provide 105 parking spaces and Block 2 of the Project would provide 303 parking spaces, which would be below the maximum required by the Code. Therefore, the Project would provide less parking than the maximum required by the Code.
- The Project is located within the Downtown & Jack London Square Priority Development Area (PDA) as defined by Plan Bay Area, and is therefore consistent with the region's Sustainable Communities Strategy.

<u>VMT Screening Conclusion</u>

The Project would satisfy the Low-VMT Area criterion (#2) and the Near Transit Stations criterion (#3) and is therefore presumed to have a less–than-significant impact on VMT.

Induced Automobile Travel (Criteria 14c)

The Project would not modify the roadway network surrounding the Project area. Therefore, the Project would not increase the physical roadway capacity and would not add new roadways to the network, and would not induce additional automobile traffic. This is a less-than-significant impact; no mitigation measures are required.

7.14.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and the Previous CEQA Documents, implementation of the Project would not increase the severity of significant impacts identified in the 2014 LMSAP EIR or the Previous CEQA Documents, nor would it result in new significant impacts related to transportation and circulation that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents, as summarized below.

The Project would contribute trips to the significant impacts previously identified in the 2014 LMSAP EIR. However, as noted above, the total cumulative development contemplated and approved within the 2014 LMSAP EIR is substantially larger than that which is currently proposed and under consideration within the Specific Plan Area. The impacts of the Project are considered equal to, or less severe than, those previously identified and disclosed in the 2014 LMSAP EIR.

The Project's potential impacts related to pedestrian, bicycle, transit, emergency access, and design and incompatible use considerations would be less than significant and thus consistent with that identified in the 2014 LMSAP EIR. The Project would not result in any other transportation related significant impacts.

Further, implementation of **SCA TRA-1, Construction Activity in the Public Right-of-Way; SCA TRA-2, Bicycle Parking**; **SCA TRA-3, Transportation Improvements**; **SCA TRA-4, Transportation and Parking Demand Management; SCA TRA-5, Transportation Impact Fee;** and **SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure**, would be applicable to the Project and would ensure that transportation and circulation-related impacts associated with the Project would be less than significant (see Attachment A). No mitigation measures would be required. Overall, with implementation of applicable SCAs, the Project would not result in new or more severe significant impacts related to transportation and circulation than those already analyzed and disclosed in the 2014 LMSAP EIR.

7.15 Utilities and Service Systems

Would the project:	Equal or Less Severity of Impact Previously Identified in Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board; Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects; Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☒	☐	☐
b. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☒	☐	☐
c. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects; Violate applicable federal, state, and local statutes and regulations related to solid waste;	☒	☐	☐
d. Violate applicable federal, state and local statutes and regulations relating to energy standards; or Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	☒	☐	☐

7.15.1 Previous CEQA Documents Findings

The 2011 Renewal Plan Amendments EIR found less-than-significant impacts related to water, wastewater, or stormwater facilities, solid waste, and energy finding no mitigation measures were warranted but adhering to certain City of Oakland SCAs. The 1998 LUTE EIR identified significant effects regarding these topics and identified mitigation measures that reduced the effects to less-than-significant levels.

7.15.2 2014 LMSAP EIR Findings

The 2014 LMSAP EIR identified less-than-significant impacts to utilities and service systems with the incorporation of City of Oakland SCAs in certain instances where new infrastructure would be required to be constructed. The 2014 LMSAP EIR determined that the capacity of existing service systems would meet increased service demand of development analyzed for the LMSAP; wastewater demand would not exceed wastewater treatment requirements or capacity, surface water runoff would not exceed the capacity of the storm drain system, water demand would not exceed available water supplies, and solid waste generated would not exceed landfill capacity. No mitigation measures were necessary.

7.15.3 Project Analysis

Redevelopment of the project site was anticipated in the 2014 LMSAP EIR and the Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR.

Water, Wastewater, and Stormwater (Criteria 15a and 15b)

The 2014 LMSAP EIR determined that growth within the LMSAP Area would not exceed water supplies available to serve the Plan, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects. Development of the project site was assumed in the LMSAP reasonably foreseeable maximum development program and, therefore, the Project would have a less-than-significant impact in terms of water supply. Nonetheless, implementation of SCA UTIL-7, Recycled Water and SCA UTIL-8, Water Efficient Landscape Ordinance (WELO), would further reduce less-than-significant impacts.

Additionally, the 2014 LMSAP EIR found that development of the LMSAP would not contain any unusual pollutants and would be within the existing capacity of East Bay Municipal Utility District's (EBMUD's) wastewater treatment plant, that the additional wastewater generated by development under the LMSAP would be adequately handled by the existing sanitary sewer system, and that development under the LMSAP would not be anticipated to change stormwater flows substantially due to the existing developed nature of the area.

As the Project is located in an already built out urban area, no new major infrastructure would be required for the Project. The buildings on Block 1 would tie into existing water mains in Fallon and 8th Streets for water service and would tie into an existing sewer mains in 8th and 9th Streets. The buildings on Block 2 would tie into existing water mains in Oak and 8th Streets for water service, and into existing sewer mains located in Oak and Madison Streets. New stormwater infrastructure would be constructed for Block 1 including storm drain laterals in 8th, Oak, and Fallon Streets connecting to existing storm drain mains. Storm drain infrastructure would be constructed for Block 2 including new storm drain laterals in Oak and Madison Streets. Associated storm drain inlets and manholes would also be constructed for the new stormwater infrastructure. Additionally, various stormwater inlets would be constructed within the sidewalks surrounding

Block 2. Construction of utility connections and laterals are proposed as part of the Project and are analyzed within this CEQA Checklist, and would not could cause significant environmental effects.

Development of the Project would increase sewer demand; however, implementation of SCAs requiring stormwater control during and after construction would address any potential impacts on stormwater treatment and sanitary sewer as a result of the Project. These SCAs include SCA UTIL-5, Sanitary Sewer System requiring project applicants to prepare a Sanitary Sewer Impact Analysis; and SCA UTIL-6, Storm Drain System requiring projects to reduce existing peak stormwater runoff. In addition, implementation of SCA HYD-1, Erosion and Sedimentation Control Plan for Construction; SCA HYD-2, State Construction General Permit; and SCA HYD-3, NPDES C.3 Stormwater Requirements for Regulated Projects would further reduce potential impacts on stormwater treatment (see Section 7.9, *Hydrology and Water Quality*). Therefore, the Project would not result in any new or more substantial impacts on water or sewer services than those identified in the 2014 LMSAP EIR and, with the implementation of SCAs requiring stormwater control during and after construction, the impact on water and sewer services would remain less than significant.

Solid Waste Services (Criterion 15c)

The 2014 LMSAP EIR demonstrated that the five landfills most heavily used by the City of Oakland have substantial capacity through the planning horizon. Further, the development under LMSAP would not impede the ability of the City to meet the waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. The Project Applicant would be required to comply with the City's construction and demolition debris recycling ordinance (Municipal Code Chapter 15.34), which requires submittal of a plan to divert at least 50 percent of the construction waste generated by the Project from landfill disposal. The California Green Building Standards Code (CALGreen) also requires recycling and/or salvaging for reuse of a minimum of 65 percent of non-hazardous construction and demolition waste. The Project Applicant would be required to comply with the City of Oakland Recycling Space Allocation Ordinance (Planning Code Chapter 17.118) to ensure the provision of adequate, accessible, and convenient locations for the collection and storage of recyclable materials. The Project would be required to comply with City of Oakland SCAs pertaining to waste reduction and recycling. These include SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling requiring project applicants to prepare and implement a Construction and Demolition Waste Reduction and Recycling Plan; and SCA UTIL-3, Recycling Collection and Storage Space requiring compliance with the City of Oakland Recycling Space Allocation Ordinance. The Project is within the impact envelope of the reasonably foreseeable maximum development program analyzed by the 2014 LMSAP EIR, and redevelopment of the project site was anticipated in the 2014 LMSAP EIR. Therefore, the impacts associated with solid waste services and/or landfill capacity as a result of the Project would remain less than significant.

Energy (Criterion 15d)

During construction, the Project would result in the consumption of fuel through the use of construction equipment, hauling truck trips, building material delivery truck trips, and worker trips to and from the project site. SCA AIR-2, Criteria Air Pollutant Controls - Construction Related, requires limiting idling from diesel-fueled off-road vehicles over 25 horsepower and construction vehicles to two minutes, which would reduce the wasteful, inefficient, or unnecessary consumption of fuel during Project construction (see Section 7.3, *Air Quality*). Additionally, SCA AIR-2 requires portable equipment to be powered by grid electricity if available, and diesel engines are only allowed if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand.

During operation, fuel would be used for vehicle trips to and from the project site by residents, employees, and visitors. However, the Project would constitute higher density transit-oriented development by locating jobs and housing in immediate proximity to the Lake Merritt BART station and other major transit options which would reduce the need for vehicle use and associated fuel, and would reduce the wasteful, inefficient, or unnecessary consumption of fuel during Project operation. Additionally, SCA TRA-2, Bicycle Parking, and SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure, would require the provision of bicycle parking and electric vehicle infrastructure on the project site, which would further reduce the need for vehicle use and associated fuel (see Section 7.14, *Transportation and Circulation*).

The Project would result in less-than-significant impacts related to energy standards and use, and would comply with the standards of Title 24 of the California Code of Regulations. In addition, City of Oakland **SCA UTIL-4, Green Building Requirements**, pertaining to compliance with the green building ordinance would require construction projects to incorporate energy-conserving design measures, documented Project compliance with the current version of Title 24 of the California Building Code, and demonstrated compliance with CALGreen mandatory measures and other green building point certification requirements. Implementation of SCA UTIL-4 would ensure the Project's impacts on energy would remain less than significant.

7.15.4 Conclusion

Based on an examination of the analysis, findings, and conclusions of the 2014 LMSAP EIR and Previous CEQA Documents, implementation of the Project would not result in any new or more severe significant impacts related to utilities and service systems that were not identified in the 2014 LMSAP EIR or the Previous CEQA Documents. **SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling; SCA UTIL-3, Recycling Collection and Storage Space; SCA UTIL-4, Green Building Requirements; SCA UTIL-5, Sanitary Sewer System; SCA UTIL-6, Storm Drain System; SCA UTIL-7, Recycled Water; SCA UTIL-8, Water Efficient Landscape Ordinance (WELO); SCA AIR-2, Criteria Air Pollutant Controls - Construction Related; SCA HYD-1, Erosion and Sedimentation Control Plan for Construction; SCA HYD-2**, **State Construction General Permit**; **SCA HYD-3**, **NPDES C.3 Stormwater Requirements for Regulated Projects**; **SCA TRA-2, Bicycle Parking**; and **SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure** (see Attachment A), as well as Title 24 and CALGreen requirements, would be applicable to and would be implemented by the Project, and would ensure that impacts to sewer capacity, stormwater drainage facilities, solid waste services, and energy would be less than significant.

8. References

(All references cited below are available at the Oakland Bureau of Planning, Agency, 250 Frank Ogawa Plaza, Suite 3330, Oakland, California, unless specified otherwise.)

8.1.1 Lake Merritt Station Area Plan EIR

City of Oakland, Draft EIR, 2014.

City of Oakland, Final EIR, 2014.

8.1.2 Central District Urban Renewal Plan Amendment (Renewal Plan) EIR

Oakland Redevelopment Agency, Draft EIR for the Proposed Amendments to the Central District Urban Renewal Plan, March 2011.

Oakland Redevelopment Agency, Final EIR for the Proposed Amendments to the Central District Urban Renewal Plan, June 2011.

Oakland Redevelopment Agency, 2012. *Central District Urban Renewal Plan*, Adopted June 12, 1969, as amended through April 3, 2012.

8.1.3 City of Oakland Housing Element EIR

City of Oakland, Draft EIR for the City of Oakland Housing Element (January 1, 2007 – June 30, 2014), August 2010.

City of Oakland, Final EIR for the City of Oakland Housing Element (January 1, 2007 – June 30, 2014), November 2010.

City of Oakland, CEQA Addendum for City of Oakland Housing Element (2015-2023), 2014.

8.1.4 General Plan Land Use and Transportation Element EIR

City of Oakland, 1998 LUTE Draft EIR, October 1997.

City of Oakland, 1998 LUTE Final EIR, February 1998.

City of Oakland, 2007. Land Use and Transportation Element of the Oakland General Plan, March 24, 1998, amended to June 21, 2007.

8.1.5 Plan Bay Area

Metropolitan Transportation Commission and Association of Bay Area Governments, 2017. Plan Bay Area 2040, Strategy for a Sustainable Region. Adopted July 11, 2017.

8.1.6 Oakland Planning Code

City of Oakland, 2014. City of Oakland Planning Code. CEDA: Planning and Zoning. https://cao-94612.s3.amazonaws.com/documents/Planning-Code-after-12-4-2018_Residential-Hotel-Regulations-Update.pdf, accessed January 8, 2019.

Attachments

A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program
B. Criteria for Use of Addendum, Per CEQA Guidelines Sections 15164
C. Project Consistency with Community Plan or Zoning, Per CEQA Guidelines Section 15183

Appendices

A. Shadow Diagrams and Analysis
B. Wind Technical Report
C. Air Quality Tables
D. Equitable Climate Action Plan Consistency Checklist
E. Non-CEQA Transportation Analysis/Transportation Tables
F. Transportation Demand Management Plan

ATTACHMENT A

Standard Conditions of Approval and Mitigation Monitoring and Reporting Program

This Standard Conditions of Approval (SCAs) and Mitigation Monitoring and Reporting Program (SCAMMRP) is based on the CEQA Checklist prepared for the Lake Merritt BART Station Redevelopment Project.

This SCAMMRP is in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency "adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects." The SCAMMRP lists mitigation measures recommended in the 2014 LMSAP EIR that apply to the Project. The SCAMMRP also lists other SCAs that apply to the Project, most of which were identified in the 2014 LMSAP EIR and some of which have been subsequently updated or otherwise modified by the City. Specifically, on December 16, 2020, the City of Oakland released a revised set of all City of Oakland SCAs, which largely still include SCAs adopted by the City in 2008, along with supplemental, modified, and new SCAs. SCAs are measures that would minimize potential adverse effects that could result from implementation of the Project, to ensure the conditions are implemented and monitored. The revised set of the City of Oakland SCAs includes new, modified, and reorganized SCAs; however, none of the revisions diminish or negate the ability of the SCAs considered "environmental protection measures" to minimize potential adverse environmental effects. As such, the SCAs identified in the SCAMMRP reflect the current SCAs only. Although the SCA numbers listed below may not correspond to the SCA numbers in the 2014 LMSAP EIR, all of the environmental topics and potential effects addressed by the SCAs in the 2014 LMSAP EIR are included in this SCAMMRP (as applicable to the Project). This SCAMMRP also identifies the mitigation monitoring requirements for each mitigation measure and SCA.

This CEQA Checklist is also based on the analysis in the following Prior EIRs that apply to the Project: Oakland's 1998 General Plan Land Use and Transportation Element EIR (1998 LUTE EIR), and the 2011 Central District Urban Renewal Plan Amendments EIR (2011 Renewal Plan Amendments EIR). None of the mitigation measures or SCAs from these EIRs are included in this SCAMMRP because they, or an updated or equally effective mitigation measure or SCA, is identified in the 2014 LMSAP EIR, its addenda, or in this CEQA Checklist for the Project.

To the extent that there is any inconsistency between any mitigation measures and/or SCAs, the more restrictive conditions shall govern; to the extent any mitigation measure and/or SCA identified in the

CEQA Checklist were inadvertently omitted, they are automatically incorporated herein by reference.

- The first column of the SCAMMRP table identifies the mitigation measure or SCA applicable to that topic in the CEQA Checklist. While a mitigation measure or SCA can apply to more than one topic, it is listed in its entirety only under its primary topic (as indicated in the mitigation or SCA designator). The SCAs are numbered to specifically apply to the Project and this CEQA Checklist; however, the SCAs as presented in the City's *Standard Conditions of Approval and Uniformly Applied Development Standards* document[45] are included in parenthesis for cross-reference purposes.
- The second column identifies the monitoring schedule or timing applicable to the Project.
- The third column names the party responsible for monitoring the required action for the Project.

The Project Applicant is responsible for compliance with any recommendations identified in City-approved technical reports, all applicable mitigation measures adopted, and with all SCAs set forth herein at its sole cost and expense, unless otherwise expressly provided in a specific mitigation measure or condition of approval, and subject to the review and approval of the City of Oakland. Overall monitoring and compliance with the mitigation measures will be the responsibility of the Bureau of Planning, and Zoning Inspections Division. Prior to the issuance of a demolition, grading, and/or construction permit, the Project Applicant shall pay the applicable mitigation and monitoring fee to the City in accordance with the City's Master Fee Schedule.

[45] Dated December 16, 2020, as amended.

<table>
<tr><th rowspan="2">Standard Conditions of Approval/Mitigation Measures</th><th colspan="2">Mitigation Implementation/Monitoring</th></tr>
<tr><th>Schedule</th><th>Responsibility</th></tr>
<tr><td colspan="3">General</td></tr>
<tr><td>SCA GEN-1 (Standard Condition Approval 15) Regulatory Permits and Authorizations from Other Agencies
<u>Requirement</u>: The project applicant shall obtain all necessary regulatory permits and authorizations from applicable resource/regulatory agencies including, but not limited to, the Regional Water Quality Control Board, Bay Area Air Quality Management District, Bay Conservation and Development Commission, California Department of Fish and Wildlife, U. S. Fish and Wildlife Service, and Army Corps of Engineers and shall comply with all requirements and conditions of the permits/authorizations. The project applicant shall submit evidence of the approved permits/authorizations to the City, along with evidence demonstrating compliance with any regulatory permit/authorization conditions of approval.</td><td>Prior to activity requiring permit/authorization from regulatory agency.</td><td>City of Oakland Bureau of Planning and applicable regulatory agency with jurisdiction</td></tr>
<tr><td colspan="3">Aesthetics, Shadow, and Wind</td></tr>
<tr><td>SCA AES-1 (Standard Condition of Approval 16) Trash and Blight Removal
The project applicant and his/her successors shall maintain the property free of blight, as defined in chapter 8.24 of the Oakland Municipal Code. For nonresidential and multi-family residential projects, the project applicant shall install and maintain trash receptacles near public entryways as needed to provide sufficient capacity for building users.</td><td>Ongoing.</td><td>City of Oakland Bureau of Building</td></tr>
<tr><td>SCA AES-2 (Standard Condition of Approval 17) Graffiti Control
a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation:
i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces.
ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces.
iii. Use of paint with anti-graffiti coating.
iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED).
v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement.
b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following:
i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.
ii. Covering with new paint to match the color of the surrounding surface.
iii. Replacing with new surfacing (with City permits if required).</td><td>Ongoing.</td><td>City of Oakland Bureau of Building</td></tr>
</table>

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Aesthetics, Shadow, and Wind (cont.)		
SCA AES-3 (Standard Condition of Approval 18) *Landscape Plan* ***a. Landscape Plan Required*** The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code. Proposed plants shall be predominantly drought-tolerant. Specification of any street trees shall comply with the Master Street Tree List and Tree Planting Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf, respectively), and with any applicable streetscape plan. ***b. Landscape Installation*** The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid. ***c. Landscape Maintenance*** All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	a. Prior to approval of construction-related permit. b. Prior to building permit final. c. Ongoing	a. City of Oakland Bureau of Planning b. City of Oakland Bureau of Building c. City of Oakland Bureau of Building
SCA AES-4 (Standard Condition of Approval 19): *Lighting* Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.	Prior to building permit final.	City of Oakland Bureau of Building
SCA UTIL-2 (Standard Condition of Approval 83) *Underground Utilities* <u>Requirement:</u> The Project applicant shall place underground all new utilities serving the Project and under the control of the Project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the Project's street frontage and from the Project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Air Quality		
SCA AIR-1 (Standard Condition of Approval 20) ***Dust Controls*** *– Construction-Related* The Project applicant shall implement all of the following applicable dust control measures during construction of the Project: a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible. b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d. Limit vehicle speeds on unpaved roads to 15 miles per hour. e. All demolition activities (if any) shall be suspended when average wind speeds exceed 20 mph. f. All trucks and equipment, including tires, shall be washed off prior to leaving the site. g. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.	During construction.	City of Oakland Bureau of Building
SCA AIR-2 (Standard Condition of Approval 21) *Criteria Air Pollutant Controls – Construction Related* <u>Requirement</u>: The project applicant shall implement all of the following applicable basic control measures for criteria air pollutants during construction of the project as applicable: a. Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points. b. Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations (“California Air Resources Board Off-Road Diesel Regulations”). c. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Equipment check documentation should be kept at the construction site and be available for review by the City and the Bay Area Air Quality District as needed. d. Portable equipment shall be powered by grid electricity if available. If electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and use propane or natural gas generators cannot meet the electrical demand. e. Low VOC (i.e., ROG) coatings shall be used that comply with BAAQMD Regulation 8, Rule 3: Architectural Coatings. f. All equipment to be used on the construction site and subject to the requirements of Title 13, Section 2449, of the California Code of Regulations (“California Air Resources Board Off-Road Diesel Regulations”) and upon request by the City, the project applicant shall provide written documentation that fleet requirements have been met.	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Air Quality (cont.)		
SCA AIR-3 (Standard Condition of Approval 22) *Diesel Particulate Matter Controls-Construction Related* ***a. Diesel Particulate Matter Reduction Measures*** Requirement: The project applicant shall implement appropriate measures during construction to reduce potential health risks to sensitive receptors due to exposure to diesel particulate matter (DPM) from construction emissions. The project applicant shall choose one of the following methods: i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with current guidance from the California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment to determine the health risk to sensitive receptors exposed to DPM from project construction emissions. The HRA shall be submitted to the City (and the Air District if specifically requested) for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then DPM reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, DPM reduction measures shall be identified to reduce the health risk to acceptable levels as set forth under subsection b below. Identified DPM reduction measures shall be submitted to the City for review and approval prior to the issuance of building permits and the approved DPM reduction measures shall be implemented during construction. - or - ii. All off-road diesel equipment shall be equipped with the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by CARB. The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. This shall be verified through an equipment inventory submittal and Certification Statement that the Contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of contract. ***b. Construction Emissions Minimization Plan (if required by a above)*** Requirement: The project applicant shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified DPM reduction measures (if any). The Emissions Plan shall be submitted to the City (and the Bay Area Air Quality District if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following: i. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date. ii. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract.	a. Prior to issuance of a construction related permit (i), during construction (ii). b. Prior to issuance of a construction related permit.	a. City of Oakland Bureau of Planning and Bureau of Building. b. City of Oakland Bureau of Planning and Bureau of Building.
SCA AIR-4 (Standard Condition of Approval 26) *Asbestos in Structures* Requirement: The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.	Prior to approval of construction-related permit	Applicable regulatory agency with jurisdiction

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Air Quality (cont.)		
SCA AIR-5 (Standard Condition of Approval 24) *Stationary Sources of Air Pollution (Toxic Air Contaminants)* Requirement: The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants. The project applicant shall choose **one** of the following methods: a. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable. - or - b. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City: i. Installation of non-diesel fueled generators, if feasible, or; ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible.	Prior to approval of construction-related permit	City of Oakland Bureau of Planning and Bureau of Building.
SCA AIR-6 (Standard Condition of Approval 23) *Exposure to Air Pollution (Toxic Air Contaminants)* ***a. Health Risk Reduction Measures*** Requirement: The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to toxic air contaminants. The project applicant shall choose **one** of the following methods: i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk of exposure of project residents/occupants/users to air pollutants. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable. - or -	a. Prior to approval of a construction related permit b. Ongoing.	a. City of Oakland Bureau of Planning and Bureau of Building. b. City of Oakland Bureau of Building.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
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Air Quality (cont.)		
ii. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City: • Installation of air filtration to reduce cancer risks and Particulate Matter (PM) exposure for residents and other sensitive populations in the project that are in close proximity to sources of air pollution. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required. • Where appropriate, install passive electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph). • Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible. • The project shall be designed to locate sensitive receptors as far away as feasible from the source(s) of air pollution. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall be located as far away as feasible from a loading dock or where trucks concentrate to deliver goods. • Sensitive receptors shall be located on the upper floors of buildings, if feasible. • Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (*Pinus nigra* var. *maritima*), Cypress (*X Cupressocyparis leylandii*), Hybrid poplar (*Populus deltoids X trichocarpa*), and Redwood (*Sequoia sempervirens*). • Sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible. • Existing and new diesel generators shall meet CARB's Tier 4 emission standards, if feasible. • Emissions from diesel trucks shall be reduced through implementing the following measures, if feasible: – Installing electrical hook-ups for diesel trucks at loading docks. – Requiring trucks to use Transportation Refrigeration Units (TRU) that meet Tier 4 emission standards. – Requiring truck-intensive projects to use advanced exhaust technology (e.g., hybrid) or alternative fuels. – Prohibiting trucks from idling for more than two minutes. – Establishing truck routes to avoid sensitive receptors in the project. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented. ***b. Maintenance of Health Risk Reduction Measures*** Requirement: The project applicant shall maintain, repair, and/or replace installed health risk reduction measures, including but not limited to the HVAC system (if applicable), on an ongoing and as-needed basis. Prior to occupancy, the project applicant shall prepare and then distribute to the building manager/operator an operation and maintenance manual for the HVAC system and filter including the maintenance and replacement schedule for the filter.		

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<tr><th>Schedule</th><th>Responsibility</th></tr>
<tr><td colspan="3">Biological Resources</td></tr>
<tr><td>SCA BIO-1 (Standard Condition of Approval 29) Tree Removal During Bird Breeding Season

<u>Requirement:</u> To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work and shall be submitted to the City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.</td><td>Prior to removal of trees.</td><td>City of Oakland Bureau of Planning</td></tr>
<tr><td>SCA BIO-2 (Standard Condition of Approval 30) Tree Permit

a. Tree Permit Required

<u>Requirement</u>: Pursuant to the City’s Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit.

<u>When Required</u>: Prior to approval of construction-related permit

<u>Initial Approval</u>: Permit approval by Public Works Department, Tree Division; evidence of approval submitted to Bureau of Building

<u>Monitoring/Inspection</u>: Bureau of Building

b. Tree Protection During Construction

<u>Requirement</u>: Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project’s consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.

ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project’s consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.</td><td>Prior to building permit final</td><td>Public Works Department, Tree Division

City of Oakland Bureau of Building</td></tr>
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Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Biological Resources (cont.)		
iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed. vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations. When Required: During construction Initial Approval: Public Works Department, Tree Division Monitoring/Inspection: Bureau of Building c. ***Tree Replacement Plantings*** Requirement: Replacement plantings shall be required for tree removals for the purposes of erosion control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria: i. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. ii. Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus californica (California Buckeye), Umbellularia californica (California Bay Laurel), or other tree species acceptable to the Tree Division. iii. Replacement trees shall be at least twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate. iv. Minimum planting areas must be available on site as follows: • For Sequoia sempervirens, three hundred fifteen (315) square feet per tree; • For other species listed, seven hundred (700) square feet per tree.		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Biological Resources (cont.)		
v. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City's Master Fee Schedule may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians. vi. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which fail to become established within one year of planting shall be replanted at the project applicant's expense.	vii.	viii.
See **SCA AES-4, Lighting**. See *Aesthetics*, above.		
See **SCA HYD-1, Erosion and Sedimentation Control Plan for Construction**. See *Hydrology and Water Quality*, below.		
See **SCA HYD-2, State Construction General Permit**. See *Hydrology and Water Quality*, below.		
See **SCA HYD-3, NPDES C.3 Stormwater Requirements for Regulated Projects**. See *Hydrology and Water Quality*, below.		
Cultural Resources		
SCA CUL-1 (Standard Condition of Approval 32): *Archaeological and Paleontological Resources – Discovery During Construction* Requirement: Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the Project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented. In the event of data recovery of archaeological resources, the Project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The Project applicant shall implement the ARDTP at his/her expense. In the event of excavation of paleontological resources, the Project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the Project applicant.	During construction.	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Cultural Resources (cont.)		
SCA CUL-2 (Standard Condition of Approval SCA 34): *Human Remains – Discovery During Construction* Requirement: Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the Project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the Project applicant.	During construction.	City of Oakland Bureau of Building
Geology, Soils, and Geohazards		
SCA GEO-1 (Standard Condition of Approval 36): *Construction-Related Permit(s)* Requirement: The Project applicant shall obtain all required construction-related permits/approvals from the City. The Project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
SCA GEO-2 (Standard Condition of Approval 37): *Soils Report* Requirement: The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
Greenhouse Gases and Climate Change		
SCA GHG-1 (Standard Condition of Approval 41): *Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist* Requirement: The project applicant shall implement all the measures in the Equitable Climate Action Plan (ECAP) Consistency Checklist that was submitted during the Planning entitlement phase. a. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits. b. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be implemented during construction. c. For ECAP Consistency Checklist measures that are operational but not otherwise covered by these SCAs, including but not limited to the requirement for transit passes or additional Transportation Demand Management measures, the applicant shall provide notice of these measures to employees and/or residents and post these requirements in a public place such as a lobby or work area accessible to the employees and/or residents.	a. Prior to approval of construction-related permit b. During construction c. Ongoing	a. City of Oakland Bureau of Planning b. City of Oakland Bureau of Planning and Bureau of Building c. City of Oakland Bureau of Planning
See **SCA AES-3, Landscape Plan**. See *Aesthetics, Wind, and Shadow*, above.		
See **SCAs AIR-2, Criteria Air Pollutant Controls - Construction Related**. See *Air Quality*, above.		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Greenhouse Gases and Climate Change (cont.)		
See **SCA AIR-3, Diesel Particulate Matter Controls - Construction Related**. See *Air Quality*, above.		
See **SCA TRA-2, Bicycle Parking**. See *Transportation and Circulation*, below.		
See **SCA TRA-4, Transportation and Parking Demand Management**. See *Transportation and Circulation*, below.		
See **SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure**. See *Transportation and Circulation*, below.		
See **SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling**. See *Utilities and Service Systems*, below.		
See **SCA UTIL-4**, **Green Building Requirements.** See *Utilities and Service Systems*, below.		
Hazards and Hazardous Materials		
SCA HAZ-1 (Standard Condition of Approval 43): *Hazards Materials Related to Construction* Requirement: The Project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following: a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction; b. Avoid overtopping construction equipment fuel gas tanks; c. During routine maintenance of construction equipment, properly contain and remove grease and oils; d. Properly dispose of discarded containers of fuels and other chemicals; e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.	During construction.	City of Oakland Bureau of Building

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<tr><td colspan="3">Hazards and Hazardous Materials (cont.)</td></tr>
<tr><td>SCA HAZ-2 (Standard Condition of Approval 44): Hazardous Building Materials and Site Contamination
a. Hazardous Building Materials and Site Contamination
<u>Requirement</u>: The project applicant shall submit a comprehensive assessment report to the Bureau of Building, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACMs), lead-based paint, polychlorinated biphenyls (PCBs), and any other building materials or stored materials classified as hazardous materials by State or federal law. If lead-based paint, ACMs, PCBs, or any other building materials or stored materials classified as hazardous materials are present, the project applicant shall submit specifications prepared and signed by a qualified environmental professional, for the stabilization and/or removal of the identified hazardous materials in accordance with all applicable laws and regulations. The project applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.
b. Environmental Site Assessment Required
<u>Requirement</u>: The project applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase I report, for the project site for review and approval by the City. The report(s) shall be prepared by a qualified environmental assessment professional and include recommendations for remedial action, as appropriate, for hazardous materials. The project applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.
c. Health and Safety Plan Required
<u>Requirement</u>: The Project applicant shall submit a Health and Safety Plan for the review and approval by the City in order to protect project construction workers from risks associated with hazardous materials. The Project applicant shall implement the approved Plan.
d. Best Management Practices (BMPs) Required for Contaminated Sites
<u>Requirement</u>: The Project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential soil and groundwater hazards. These shall include the following:
i. Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements.
ii Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.</td><td>a. Prior to approval of demolition, grading, or building permits
b. Prior to approval of construction-related permit
c. Prior to approval of construction-related permit
d. During Construction</td><td>a. City of Oakland Bureau of Building
b. Applicable regulatory agency with jurisdiction
c. City of Oakland Bureau of Building
d. City of Oakland Bureau of Building</td></tr>
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<tr><td colspan="3">Hazards and Hazardous Materials (cont.)</td></tr>
<tr><td>SCA HAZ-3 (Standard Condition of Approval 45) Hazardous Materials Business Plan
<u>Requirement:</u> The project applicant shall submit a Hazardous Materials Business Plan for review and approval by the City, and shall implement the approved Plan. The approved Plan shall be kept on file with the City and the project applicant shall update the Plan as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle hazardous materials and provides information to the Fire Department should emergency response be required. Hazardous materials shall be handled in accordance with all applicable local, state, and federal requirements. The Hazardous Materials Business Plan shall include the following:
a. The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.
b. The location of such hazardous materials.
c. An emergency response plan including employee training information.
d. A plan that describes the manner in which these materials are handled, transported, and disposed.</td><td>Prior to building permit final</td><td>City of Oakland Fire Department</td></tr>
<tr><td>See SCA HYD-2, State Construction General Permit. See Hydrology and Water Quality, below.</td><td></td><td></td></tr>
<tr><td>See SCA HYD-3, NPDES C.3 Stormwater Requirements for Regulated Projects. See Hydrology and Water Quality, below.</td><td></td><td></td></tr>
<tr><td>See SCA TRA-1, Construction Activity in the Public Right-of-Way. See Transportation and Traffic, below.</td><td></td><td></td></tr>
<tr><td colspan="3">Hydrology and Water Quality</td></tr>
<tr><td>SCA HYD-1 (Standard Condition of Approval 49): Erosion and Sedimentation Control Plan for Construction
a. Erosion and Sedimentation Control Plan Required
<u>Requirement</u>: The Project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the Project applicant shall clear the system of any debris or sediment.
b. Erosion and Sedimentation Control During Construction
<u>Requirement</u>: The Project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.</td><td>a. Prior to approval of construction-related permit.
b. During construction.</td><td>City of Oakland Bureau of Building</td></tr>
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<tr><td colspan="3">Hydrology and Water Quality (cont.)</td></tr>
<tr><td>SCA HYD-2 (Standard Condition of Approval 50): State Construction General Permit
<u>Requirement:</u> The project applicant shall comply with the requirements of the Construction General Permit issued by the State Water Resources Control Board (SWRCB). The project applicant shall submit a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other required Permit Registration Documents to SWRCB. The project applicant shall submit evidence of compliance with Permit requirements to the City.</td><td>Prior to approval of construction-related permit.</td><td>State Water Resources Control Board and City of Oakland Bureau of Building</td></tr>
<tr><td>SCA HYD-3 (Standard Condition of Approval 54): NPDES C.3 Stormwater Requirements for Regulated Projects
a. Post-Construction Stormwater Management Plan Required
<u>Requirement</u>: The Project applicant shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The project applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the project drawings submitted for site improvements, and shall implement the approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following:
i. Location and size of new and replaced impervious surface;
ii. Directional surface flow of stormwater runoff;
iii. Location of proposed on-site storm drain lines;
iv. Site design measures to reduce the amount of impervious surface area;
v. Source control measures to limit stormwater pollution;
vi. Stormwater treatment measures to remove pollutants from stormwater runoff, including the method used to hydraulically size the treatment measures; and
vii. Hydromodification management measures, if required by Provision C.3, so that post-Project stormwater runoff flow and duration match pre-Project runoff.
b. Maintenance Agreement Required
<u>Requirement</u>: The project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following:
i. The Project applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the Project until the responsibility is legally transferred to another entity; and
ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary.
The maintenance agreement shall be recorded at the County Recorder’s Office at the applicant’s expense.</td><td>a. Prior to approval of construction-related permit.
b. Prior to building permit final.</td><td>a. City of Oakland Bureau of Building
b. City of Oakland Bureau of Building</td></tr>
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Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
SCA HYD-4 (Standard Condition of Approval 56): *Architectural Copper* <u>Requirement</u>: The project applicant shall implement Best Management Practices (BMPs) concerning the installation, treatment, and maintenance of exterior architectural copper during and after construction of the project in order to reduce potential water quality impacts in accordance with Provision C.13 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The required BMPs include, but are not limited to, the following: a. If possible, use copper materials that have been pre-patinated at the factory; b. If patination is done on-site, ensure rinse water is not discharged to the storm drain system by protecting storm drain inlets and implementing one or more of the following: c. Discharge rinse water to landscaped area; d. Collect rinse water in a tank and discharge to the sanitary sewer, with approval by the City; or haul off-site for proper disposal; e. During maintenance activities, protect storm drain inlets to prevent wash water discharge into storm drains; and f. Consider coating the copper with an impervious coating that prevents further corrosion.	During construction, ongoing.	City of Oakland Bureau of Building
Also **SCA GEO-1, Construction-Related Permit(s).** See *Geology, Soils, and Geohazards*, above.		
Also **SCA UTIL-6, Storm Drain System**. See *Utilities and Service Systems*, below.		
Noise		
SCA NOI-1 (Standard Condition of Approval 62) *Construction Days/Hours* <u>Requirement</u>: The project applicant shall comply with the following restrictions concerning construction days and hours: a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday. c. No construction is allowed on Sunday or federal holidays. Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area. Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.	During construction.	City of Oakland Bureau of Building

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<tr><td colspan="3">Noise (cont.)</td></tr>
<tr><td>SCA NOI-2: (Standard Condition of Approval 63) Construction Noise
<u>Requirement</u>: The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following:
a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible.
b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.
c. Applicant shall use temporary power poles instead of generators where feasible.
d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.
e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.</td><td>During construction.</td><td>City of Oakland Bureau of Building</td></tr>
<tr><td>SCA NOI-3 (Standard Condition of Approval 64) Extreme Construction Noise
a. Construction Noise Management Plan Required
<u>Requirement</u>: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures <u>include, but are not limited to, the following</u>:
i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;
ii. Implement “quiet” pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;
iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;
iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example <u>and implement such measure if such measures are feasible and would noticeably reduce noise impacts</u>; and
v. Monitor the effectiveness of noise attenuation measures by taking noise measurements.</td><td>a. Prior to approval of construction-related permit.
b. During construction.</td><td>City of Oakland Bureau of Building</td></tr>
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Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Noise (cont.)		
b. Public Notification Required Requirement: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.		
SCA NOI-4 (Standard Condition of Approval 66) *Construction Noise Complaints* Requirement: The project applicant shall submit to the City for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction noise, and shall implement the procedures during construction. At a minimum, the procedures shall include**:** a. Designation of an on-site construction complaint and enforcement manager for the project; b. A large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures, and phone numbers for the project complaint manager and City Code Enforcement unit; c. Protocols for receiving, responding to, and tracking received complaints; and d. Maintenance of a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the City's request.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
SCA NOI-5 (Standard Condition of Approval 67) *Exposure to Community Noise* Requirement: The project applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the Oakland General Plan. The applicant shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following**:** a. 45 dBA: Residential activities, civic activities, hotels b. 50 dBA: Administrative offices; group assembly activities c. 55 dBA: Commercial activities d. 65 dBA: Industrial activities	Prior to approval of construction-related permit.	City of Oakland Bureau of Planning and Bureau of Building
SCA NOI-6 (Standard Condition of Approval 68) *Operational Noise* Requirement: Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.	Ongoing.	City of Oakland Bureau of Building

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<tr><td colspan="3">Population and Housing</td></tr>
<tr><td>SCA POP-1 (Standard Condition of Approval 71) Jobs/Housing Impact Fee
<u>Requirement</u>: The project applicant shall comply with the requirements of the City of Oakland Jobs/Housing Impact Fee Ordinance (chapter 15.68 of the Oakland Municipal Code).</td><td>Prior to issuance of building permit; subsequent milestones pursuant to ordinance.</td><td>City of Oakland Bureau of Building</td></tr>
<tr><td>SCA POP-2 (Standard Condition of Approval 72) Affordable Housing Impact Fee
<u>Requirement</u>: The project applicant shall comply with the requirements of the City of Oakland Affordable Housing Impact Fee Ordinance (chapter 15.72 of the Oakland Municipal Code).</td><td>Prior to issuance of building permit; subsequent milestones pursuant to ordinance.</td><td>City of Oakland Bureau of Building</td></tr>
<tr><td colspan="3">Public Services, Parks, and Recreation Facilities</td></tr>
<tr><td>SCA PUB-1 (Standard Condition of Approval 73) Capital Improvements Impact Fee
<u>Requirement</u>: The project applicant shall comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code).</td><td>Prior to issuance of building permit</td><td>City of Oakland Bureau of Building</td></tr>
<tr><td>SCA REC-1 (Standard Condition of Approval 74) Access to Parks and Open Space
<u>Requirement</u>: The project applicant shall submit a plan for City review and approval to enhance bicycle and pedestrian access from the project site and adjacent areas to Madison Square Park and Lake Merritt. Examples of enhancements may include, but are not limited to, new or improved bikeways, bike parking, traffic control devices, sidewalks, pathways, bulb-outs, and signage. The project sponsor shall install the approved enhancements during construction and prior to completion of the project.</td><td>Prior to issuance of building permit</td><td>City of Oakland Bureau of Building and City of Oakland Department of Transportation</td></tr>
<tr><td colspan="3">Transportation and Circulation</td></tr>
<tr><td>SCA TRA-1 (Standard Condition of Approval 75) Construction Activity in the Public Right-of-Way
a. Obstruction Permit Required
<u>Requirement</u>: The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops.
b. Traffic Control Plan Required
<u>Requirement</u>: In the event of obstructions to vehicle or bicycle travel lanes, bus stops, or sidewalks, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian accommodations (or Detours, if accommodations are not feasible), including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The Traffic Control Plan shall be in conformance with the City's Supplemental Design Guidance for Accommodating Pedestrians, Bicyclists, and Bus Facilities in Construction Zones. The project applicant shall implement the approved Plan during construction.
c. Repair of City Streets
<u>Requirement</u>: The project applicant shall repair any damage to the public right-of way, including streets and sidewalks caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.</td><td>a. Prior to approval of construction-related permit.
b. Prior to approval of construction-related permit.
c. Prior to building permit final.</td><td>City of Oakland Department of Transportation</td></tr>
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<tr><td colspan="3">Transportation and Circulation (cont.)</td></tr>
<tr><td>SCA TRA-2 (Standard Condition of Approval 76) Bicycle Parking
<u>Requirement</u>: The project applicant shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall demonstrate compliance with the requirements.</td><td>Prior to approval of construction-related permit.</td><td>City of Oakland Bureau of Planning and Bureau of Building</td></tr>
<tr><td>SCA TRA-3 (Standard Condition of Approval 77): Transportation Improvements.
The project applicant shall implement the recommended on- and off-site transportation-related improvements contained within the Transportation Impact Review for the project (e.g., signal timing adjustments, restriping, signalization, traffic control devices, roadway reconfigurations, transportation demand management measures, and transit, pedestrian, and bicyclist amenities). The project applicant is responsible for funding and installing the improvements, and shall obtain all necessary permits and approvals from the City and/or other applicable regulatory agencies such as, but not limited to, Caltrans (for improvements related to Caltrans facilities) and the California Public Utilities Commission (for improvements related to railroad crossings), prior to installing the improvements. To implement this measure for intersection modifications, the project applicant shall submit Plans, Specifications, and Estimates (PS&E) to the City for review and approval. All elements shall be designed to applicable City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements as required by the City. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for, among other items, the elements listed below:
a. 2070L Type Controller with cabinet accessory
b. GPS communication (clock)
c. Accessible pedestrian crosswalks according to Federal and State Access Board guidelines with signals (audible and tactile)
d. Countdown pedestrian head module switch out
e. City Standard ADA wheelchair ramps
f. Video detection on existing (or new, if required)
g. Mast arm poles, full activation (where applicable)
h. Polara Push buttons (full activation)
i. Bicycle detection (full activation)
j. Pull boxes
k. Signal interconnect and communication with trenching (where applicable), or through existing conduit (where applicable), 600 feet maximum
l. Conduit replacement contingency
m. Fiber switch
n. PTZ camera (where applicable)
o. Transit Signal Priority (TSP) equipment consistent with other signals along corridor
p. Signal timing plans for the signals in the coordination group
q. Bi-directional curb ramps (where feasible, and if project is on a street corner)
r. Upgrade ramps on receiving curb (where feasible, and if project is on a street corner)</td><td>Prior to building permit final or as otherwise specified</td><td>City of Oakland Bureau of Building and City of Oakland Department of Transportation</td></tr>
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Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Transportation and Circulation (cont.)		
SCA TRA-4 (Standard Condition of Approval 78) *Transportation and Parking Demand Management* ***a. Transportation and Parking Demand Management (TDM) Plan Required*** Requirement: The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City. i. The goals of the TDM Plan shall be the following: • Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable. • Achieve the following project vehicle trip reductions (VTR): – Projects generating 50-99 net new a.m. or p.m. peak hour vehicle trips: 10 percent VTR – Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20 percent VTR • Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate • Enhance the City's transportation system, consistent with City policies and programs. ii. The TDM Plan should include the following: • Baseline existing conditions of parking and curbside regulations within the surrounding neighborhood that could affect the effectiveness of TDM strategies, including inventory of parking spaces and occupancy if applicable. • Proposed TDM strategies to achieve VTR goals (see below). iii. For employers with 100 or more employees at the subject site, the TDM Plan shall also comply with the requirements of Oakland Municipal Code Chapter 10.68 Employer-Based Trip Reduction Program. iv. The following TDM strategies **must** be incorporated into a TDM Plan based on a project location or other characteristics. When required, these mandatory strategies should be identified as a credit toward a project's VTR	a. Prior to approval of planning application. b. Prior to building permit final c. Ongoing	a. City of Oakland Bureau of Planning b. City of Oakland Bureau of Building c. City of Oakland Department of Transportation

Improvement	Required by code or when…
Bus boarding bulbs or islands	• A bus boarding bulb or island does not already exist and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb
Bus shelter	• A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Transportation and Circulation (cont.)		

Improvement	Required by code or when…
Concrete bus pad	• A bus stop is located along the project frontage and a concrete bus pad does not already exist
Curb extensions or bulb-outs	• Identified as an improvement within site analysis
Implementation of a corridor-level bikeway improvement	• A buffered Class II or Class IV bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and • The project would generate 500 or more daily bicycle trips
Implementation of a corridor-level transit capital improvement	• A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and • The project would generate 400 or more peak period transit trips
Installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.	• Always required
In-street bicycle corral	• A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages.
Intersection improvements[46]	• Identified as an improvement within site analysis
New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards	• Always required
No monthly permits and establish minimum price floor for public parking[47]	• If proposed parking ratio exceeds 1:1000 sf. (commercial)
Parking garage is designed with retrofit capability	• Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1000 sf. (commercial)

[46] Including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.

[47] May also provide a cash incentive or transit pass alternative to a free parking space in commercial properties.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Transportation and Circulation (cont.)		

Improvement	Required by code or when…
Parking space reserved for car share	• If a project is providing parking and a project is located within downtown. One car share space reserved for buildings between 50 – 200 units, then one car share space per 200 units.
Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	• Typically required
Pedestrian crossing improvements	• Identified as an improvement within site analysis
Pedestrian-supportive signal changes[48]	• Identified as an improvement within operations analysis
Real-time transit information system	• A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better
Relocating bus stops to far side	• A project is located within 0.10 mile of any active bus stop that is currently near-side
Signal upgrades[49]	• Project size exceeds 100 residential units, 80,000 sf. of retail, or 100,000 sf. of commercial; and • Project frontage abuts an intersection with signal infrastructure older than 15 years
Transit queue jumps	• Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better
Trenching and placement of conduit for providing traffic signal interconnect	• Project size exceeds 100 units, 80,000 sf. of retail, or 100,000 sf. of commercial; and • Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and • A major transit improvement is identified within operations analysis requiring traffic signal interconnect
Unbundled parking	• If proposed parking ratio exceeds 1:1.25 (residential)

48 Including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a “scramble” signal phase where appropriate.

49 Including typical traffic lights, pedestrian signals, bike actuated signals, transit-only signals

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Transportation and Circulation (cont.)		
v. Other TDM strategies to consider include, but are not limited to, the following: • Inclusion of additional long-term and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan and the Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement. • Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping. • Installation of safety elements per the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project. • Installation of amenities such as lighting, street trees, and trash receptacles per the Pedestrian Master Plan, the Master Street Tree List, Tree Planting Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf, respectively), and any applicable streetscape plan. • Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. • Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency). • Provision of a transit subsidy to employees or residents, determined by the project applicant and subject to review by the City, if employees or residents use transit or commute by other alternative modes. • Provision of an ongoing contribution to transit service to the area between the project and nearest mass transit station prioritized as follows: 1) Contribution to AC Transit bus service; 2) Contribution to an existing area shuttle service; and 3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3). • Guaranteed ride home program for employees, either through 511.org or through separate program. • Pre-tax commuter benefits (commuter checks) for employees. • Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants. • On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools. • Distribution of information concerning alternative transportation options. • Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties. • Parking management strategies including attendant/valet parking and shared parking spaces. • Requiring tenants to provide opportunities and the ability to work off-site.		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Transportation and Circulation (cont.)		
• Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week). • Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours. The TDM Plan shall indicate the estimated VTR for each strategy, based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report. ***b. TDM Implementation – Physical Improvements*** Requirement: For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/ approvals from the City and install the improvements prior to the completion of the project. ***c. TDM Implementation – Operational Strategies*** Requirement: For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved. **NOTE: This measure has been implemented by the project applicant and no further action is required.**		
SCA TRA-5 (Standard Condition of Approval 79) *Transportation Impact Fee* Requirement: The project applicant shall comply with the requirements of the City of Oakland Transportation Impact Fee Ordinance (chapter 15.74 of the Oakland Municipal Code).	Prior to issuance of building permit	City of Oakland Bureau of Building
SCA TRA-6 (Standard Condition of Approval 81) *Plug-In Electric Vehicle (PEV) Charging Infrastructure* Requirement: The applicant shall submit, for review and approval of the Building Official and the Zoning Manager, plans that show the location of parking spaces equipped with full electrical circuits designated for future PEV charging (i.e. "PEV-Ready) per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate sufficient electrical capacity to supply the required PEV-Ready parking spaces.	Prior to issuance of building permit	City of Oakland Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Utilities and Service Systems		
SCA UTIL-1 (Standard Condition of Approval 82) *Construction and Demolition Waste Reduction and Recycling* Requirement: The Project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the Project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center.	Prior to approval of construction-related permit	City of Oakland Public Works Department, Environmental Services Division
SCA UTIL-2 (Standard Condition of Approval 83) *Underground Utilities* Requirement: The Project applicant shall place underground all new utilities serving the Project and under the control of the Project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the Project's street frontage and from the Project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During construction	City of Oakland Bureau of Building
SCA UTIL-3 (Standard Condition of Approval 84) *Recycling Collection and Storage Space* Requirement: The Project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The Project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two cubic feet of storage and collection space per residential unit is required, with a minimum of ten cubic feet. For nonresidential projects, at least two cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten cubic feet.	Prior to approval of construction-related permit.	City of Oakland Bureau of Planning and Bureau of Building
SCA UTIL-4 (Standard Condition of Approval 85) *Green Building Requirements* ***a. Compliance with Green Building Requirements During Plan-Check*** Requirement: The Project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code). i. The following information shall be submitted to the City for review and approval with the application for a building permit: • Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards. • Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit. • Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit. • Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below.	a. Prior to approval of construction-related permit. b. During construction. c. Prior to Final Approval.	a. City of Oakland Bureau of Building b. City of Oakland Bureau of Building c. City of Oakland Bureau of Planning and Bureau of Building

<table>
<tr><th rowspan="2">Standard Conditions of Approval/Mitigation Measures</th><th colspan="2">Mitigation Implementation/Monitoring</th></tr>
<tr><th>Schedule</th><th>Responsibility</th></tr>
<tr><td colspan="3">Utilities and Service Systems (cont.)</td></tr>
<tr><td>• Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance.
• Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit.
• Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.
ii. The set of plans in subsection (i) shall demonstrate compliance with the following:
• CALGreen mandatory measures.
• Compliance with the appropriate and applicable checklist approved during the Planning entitlement process.
• All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted.
The required green building point minimums in the appropriate credit categories.
b. Compliance with Green Building Requirements During Construction
<u>Requirement</u>: The Project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the Project.
The following information shall be submitted to the City for review and approval:
i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit.
ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance.
iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.
c. Compliance with Green Building Requirements After Construction
<u>Requirement</u>: Prior to the finalizing the Building Permit, the Green Building Certifier shall submit the appropriate documentation to City staff and attain the minimum required point level.</td><td></td><td></td></tr>
<tr><td>SCA UTIL-5 (Standard Condition of Approval 87) Sanitary Sewer System
<u>Requirement</u>: The Project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-Project and post-Project wastewater flow from the Project site. In the event that the Impact Analysis indicates that the net increase in Project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the Project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.</td><td>Prior to approval of construction-related permit.</td><td>City of Oakland Public Works Department, Department of Engineering and Construction</td></tr>
</table>

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	Responsibility
Utilities and Service Systems (cont.)		
SCA UTIL-6 (Standard Condition of Approval 88) *Storm Drain System* Requirement: The Project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the project site shall be reduced by at least 25 percent compared to the pre-Project condition.	Prior to approval of construction-related permit.	City of Oakland Bureau of Building
SCA UTIL-7 (Standard Condition of Approval 89) *Recycled Water* Requirement: Pursuant to section 16.08.030 of the Oakland Municipal Code, the project applicant shall provide for the use of recycled water in the project for feasible recycled water uses unless the City determines that there is a higher and better use for the recycled water, the use of recycled water is not economically justified for the project, or the use of recycled water is not financially or technically feasible for the project. Feasible recycled water uses may include, but are not limited to, landscape irrigation, commercial and industrial process use, and toilet and urinal flushing in non-residential buildings. The project applicant shall contact the New Business Office of the East Bay Municipal Utility District (EBMUD) for a recycled water feasibility assessment by the Office of Water Recycling. If recycled water is to be provided in the project, the project drawings submitted for construction-related permits shall include the proposed recycled water system and the project applicant shall install the recycled water system during construction.	Prior to approval of construction-related permit.	City of Oakland Bureau of Planning and Bureau of Building
SCA UTIL-8 (Standard Condition of Approval 90) *Water Efficient Landscape Ordinance (WELO)* Requirement: The project applicant shall comply with California's Water Efficient Landscape Ordinance (WELO) in order to reduce landscape water usage. For any landscape project with an aggregate (total noncontiguous) landscape area equal to 2,500 sq. ft. or less. The project applicant may implement either the Prescriptive Measures or the Performance Measures, of, and in accordance with the California's Model Water Efficient Landscape Ordinance. For any landscape project with an aggregate (total noncontiguous) landscape area over 2,500 sq. ft., the project applicant shall implement the Performance Measures in accordance with the WELO. *Prescriptive Measures:* Prior to construction, the project applicant shall submit documentation showing compliance with Appendix D of California's Model Water Efficient Landscape Ordinance (see website below starting on page 23): http://www.water.ca.gov/wateruseefficiency/landscapeordinance/docs/Title%2023%20extract%20-%20Official%20CCR%20pages.pdf	Prior to approval of construction-related permit.	City of Oakland Bureau of Planning
Performance Measures: Prior to construction, the project applicant shall prepare and submit a Landscape Documentation Package for review and approval, which includes the following: a. Project Information: i. Date, ii. Applicant and property owner name, iii. Project address, iv. Total landscape area, v. Project type (new, rehabilitated, cemetery, or home owner installed), vi. Water supply type and water purveyor, vii. Checklist of documents in the package, and viii. Applicant signature and date with the statement: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package.		

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring	
	Schedule	**Responsibility**
Utilities and Service Systems (cont.)		
b. Water Efficient Landscape Worksheet i. Hydrozone Information Table ii. Water Budget Calculations with Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use c. Soil Management Report d. Landscape Design Plan e. Irrigation Design Plan, and f. Grading Plan Upon installation of the landscaping and irrigation systems, the Project applicant shall submit a Certificate of Completion and landscape and irrigation maintenance schedule for review and approval by the City. The Certificate of Compliance shall also be submitted to the local water purveyor and property owner or his or her designee. For the specific requirements within the Water Efficient Landscape Worksheet, Soil Management Report, Landscape Design Plan, Irrigation Design Plan and Grading Plan, see the link below. Effective May 1, 2018 Page 77 http://www.water.ca.gov/wateruseefficiency/landscapeordinance/docs/Title%2023%20extract%20-%20Official%20CCR%20pages.pdf		
See **SCA AIR-2, Criteria Air Pollutant Controls - Construction Related**. See *Air Quality*, above.		
See **SCA HYD-1, Erosion and Sedimentation Control Plan for Construction**. See *Hydrology and Water Quality*, above.		
See **SCA HYD-2 State Construction General Permit.** See *Hydrology and Water Quality*, above.		
See **SCA HYD-3 NPDES C.3 Stormwater Requirements for Regulated Projects.** See *Hydrology and Water Quality*, above.		
See **SCA TRA-2, Bicycle Parking**. See *Transportation and Circulation*, above.		
See **SCA TRA-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure.** See *Transportation and Circulation*, above.		

ATTACHMENT B

Criteria for Use of Addendum, per CEQA Guidelines Section 15164

Section 15164(a) of the California Environmental Quality Act (CEQA) Guidelines states that "a lead agency or responsible agency shall prepare an addendum to a previously certified EIR [Environmental Impact Report] if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." Section 15164(e) states that "a brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR."

As discussed in detail in Section 6 of this document, the analysis in the 2014 LMSAP EIR is considered for this assessment under Section 15164.

Project Modifications

In November 2014, the Oakland Planning Commission certified the 2014 LMSAP EIR. The 2014 LMSAP EIR analyzed the LMSAP "Development Program," which was the assumed future development for the Plan with up to 4,900 new housing units, 4,100 new jobs, 404,000 square feet of retail use, and 1.3 million square feet of office uses. Although the Development Program was analyzed, project-specific details for each potential development project in the LMSAP Area were not known, and could not have been known, at the time the 2014 LMSAP EIR was certified. Therefore, an Addendum is required to evaluate the Lake Merritt BART Station Redevelopment Project details and determine that it would not result in new or more severe significant environmental effects than those analyzed in the 2014 LMSAP EIR.

Conditions for Addendum

As demonstrated in the CEQA checklist, none of the following conditions for preparation of a subsequent EIR per Sections 15162(a) and 15168 apply to the Project:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Project Consistency with Sections 15162 and 15168 of the CEQA Guidelines

Since certification of the 2014 LMSAP EIR, no changes have occurred in the circumstances under which the Project would be implemented that would change the severity of the Project's physical impacts, as explained in the CEQA Checklist in Section 7 of this document. No new information has emerged that would substantially change the analyses or conclusions set forth in the 2014 LMSAP EIR.

Furthermore, as demonstrated in the CEQA Checklist, the Project would not result in any new significant environmental impacts, result in any substantial increases in the significance of previously identified effects, or necessitate implementation of additional or considerably different mitigation measures than those identified in the 2014 LMSAP EIR, nor render any mitigation measures or alternatives found not to be feasible, feasible. The effects of the Project would be substantially the same as those reported in the 2014 LMSAP EIR.

The analysis presented in this CEQA Checklist, combined with the prior 2014 LMSAP EIR analysis, demonstrates that the Project would not result in significant impacts that were not previously identified in the 2014 LMSAP EIR. The Project would not result in a substantial increase in the significance of impacts, nor would the Project contribute considerably to cumulative effects that were not already accounted for in the certified 2014 LMSAP EIR. Overall, the Project's impacts are similar to those identified and discussed in the 2014 LMSAP EIR, as described in the CEQA Checklist, and the findings reached in the 2014 LMSAP EIR are applicable.

ATTACHMENT C

Project Consistency with Community Plan or Zoning, Per CEQA Guidelines Section 15183

Section 15183 (a) of the California Environmental Quality Act (CEQA) Guidelines states that "…projects which are consistent with the development density established by the existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site."

Further, Section 15183 states,

(b) In approving a project meeting the requirements of this section, a public agency shall limit its examination of environmental effects to those which the agency determines, in an initial study or other analysis:

  (1) Are peculiar to the project or the parcel on which the project would be located,

  (2) Were not analyzed as significant effects in a prior EIR on the zoning action, general plan or community plan with which the project is consistent,

  (3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action, or

  (4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.

(c) If an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, as contemplated by subdivision (e) below, then an additional EIR need not be prepared for the project solely on the basis of that impact.

Section 15183 (f) states, "An effect of a project on the environment shall not be considered peculiar to the project or the parcel for the purposes of this section if uniformly applied development policies or standards have been previously adopted by the city or county with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect."

Project Consistency. In accordance with State CEQA Guidelines 15183, the Project qualifies for a Community Plan Exemption because the following findings can be made:

- The General Plan land use designation for the site is Central Business District (CBD). This designation applies to areas suitable for high density mixed-use urban center with a mix of large-scale offices, commercial, urban (high-rise) residential, and infill hotel uses, among many others, in the central Downtown core of the city. The proposed residential rental units, office space, ground-floor commercial space, and public open space land uses would be consistent with this designation.
- Block 1 is zoned Lake Merritt Station Area District Pedestrian Commercial (D-LM-2) and Block 2 is split zoned, located partially within the D-LM-2 zone and partially within the Lake Merritt Station Area District Flex Zone (D-LM-4). The intent of the D-LM-2 Zone is to create, maintain, and enhance areas of the Lake Merritt Station Area Plan District for ground-level, pedestrian-oriented, active storefront uses, with upper story spaces intended to be available for a wide range of office and residential activities. The intent of the D-LM-4 Zone is to designate areas of the Lake Merritt Station Area Plan District appropriate for a wide range of upper story and ground level residential, commercial, and compatible light industrial activities.
- The site is located within the Lake Merritt Station Area LM-275 Height/Bulk/Intensity Area, which allows a maximum height of 275 feet, and an 85-foot maximum allowable building base height with a CUP. The Project would develop two 83-foot tall mid-rise buildings and two 275-foot tall high-rise buildings and is seeking a CUP, consistent with this designation.
- The Project is consistent with the development density established by existing zoning and General Plan policies for the site, and there are no peculiar aspects that would increase the severity of any of the previously identified significant cumulative effects in the General Plan Land Use and Transportation Element (LUTE) EIR.
- The project site is identified as an opportunity site, or a site most likely to redevelop, in the 2014 Lake Merritt Station Area Plan (LMSAP) EIR. The Project is within the impact envelope of the Development Program analyzed by the 2014 LMSAP EIR and there are no peculiar aspects that would increase the severity of any of the previously identified significant cumulative effects in the LUTE EIR.
- The Project is consistent with the development goals in the Central District Urban Renewal Plan (2011 Renewal Plan Amendments EIR). The 2011 Renewal Plan Amendments EIR details particular projects and programs that are anticipated to include targeting investments and activities toward certain catalyst projects, infrastructure improvement projects and infill development projects that are consistent with the General Plan. The Project is consistent with at least six major goals of these projects and programs:
  - A strengthening of the Project Area's existing role as an important office center for administrative, financial, business service and governmental activities.
  - Revitalization and strengthening of the Oakland Central District's historical role as the major regional retail center for the Metropolitan Oakland Area.
  - Re-establishment of residential areas for all economic levels within specific portions of the Project Area.
  - Provisions of employment and other economic benefits to disadvantaged persons living within or near the Redevelopment Project Area.

- Improved environmental design within the Project Area, including creation of a definite sense of place, clear gateways, emphatic focal points and physical design which expresses and respects the special nature of each sub-area.
- Utilization of key transit nodes to support transit-oriented development.

Project-specific impacts peculiar to the project or site, or those not analyzed in a prior EIR. Because the Project is consistent with the policies, land use designation, and development parameters in the LUTE and Lake Merritt Station Area Plan (LMSAP), the Project's potential contribution to cumulatively significant effects has already been addressed in those prior EIRs. In addition, the 2011 Renewal Plan Amendments EIR analyzed the cumulative effects of development projects that would occur absent the Renewal Plan Amendments, which would include the Project, which is not specifically addressed in the EIR.

Therefore, consistent with CEQA Guidelines Section 15183 which allows for streamlined environmental review, this document needs only to consider whether there are project-specific effects peculiar to the project or its site, and relies on the streamlining provisions of CEQA Guidelines Section 15183 to not re-consider cumulative effects.

New Significant Effects

The Project would not cause new specific effects that were not addressed in the LUTE EIR, the 2014 LMSAP EIR, or the 2011 Renewal Plan Amendments EIR. The analysis of the Project in the CEQA Checklist analysis includes all the resource topics identified as potentially incurring significant unavoidable impacts, and concludes that there would be no impacts that were not analyzed in prior EIRs.

Specifically, the analysis in the CEQA Checklist included the resource topics that the 2011 Renewal Plan Amendments EIR and 2014 LMSAP EIR determined could have significant impacts:

- Air Quality
- Noise
- Transportation/Traffic
- Cultural Resources

As these analyses demonstrate, the Project would not substantially increase the severity of the significant impacts identified in the LUTE EIR, the 2014 LMSAP EIR, or 2011 Renewal Plan Amendments EIR, nor would it result in new significant impacts that were not identified in these Previous EIRs. Further, there have been no substantial changes in circumstances following certification of the 2011 Renewal Plan Amendments EIR in 2011 or 2014 LMSAP EIR that would result in any new specific significant effects of the Project.

Substantial New Information

There is no new information that was not known at the time the 2011 Renewal Plan Amendments EIR or the 2014 LMSAP EIR were certified that would cause more severe adverse impacts than discussed in the prior EIRs. There have been no significant changes in the underlying development assumptions, nor in the applicability or feasibility of mitigation measures or SCAs included in the prior EIRs.

Standard Conditions of Approval

SCAs incorporate policies and standards from various adopted plans, policies, and ordinances, which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual Project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects, thus meeting the provision of Section 15183 (f), which states that impacts that are addressed by uniformly applied development standards (in this case, City of Oakland SCAs) are not considered peculiar to the parcel for the purpose of requiring further environmental review. Therefore, the Project requires no additional environmental review under California Public Resources Code Section 21083.3 and Section 15183 of the CEQA Guidelines.

APPENDIX A
Shadow Diagrams and Analysis

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PREVISION DESIGN

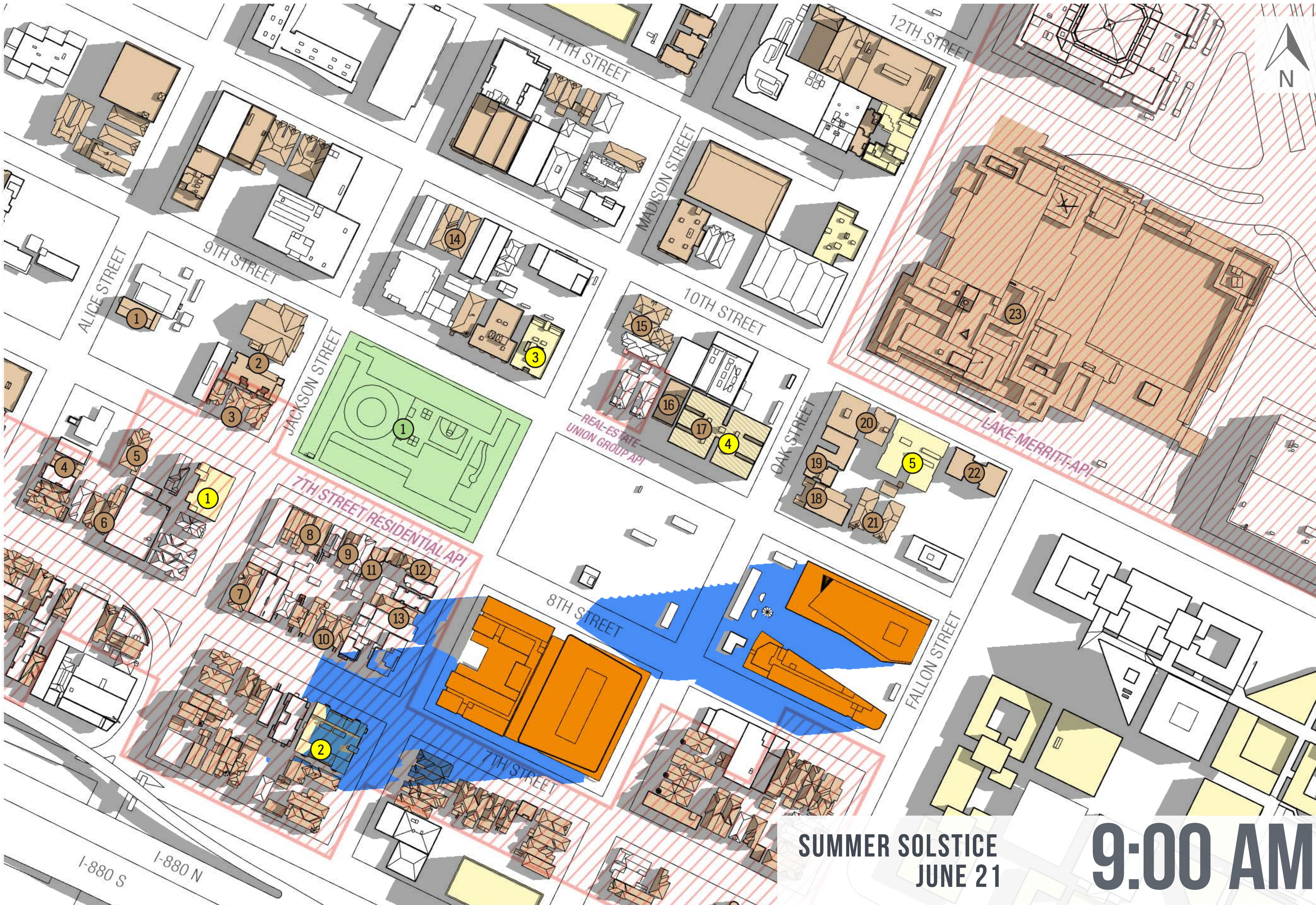
LAKE MERRITT BART

Shading diagrams on the Summer Solstice

A1-P

LEGEND

- Proposed Project
- Existing/Current Shadows
- New Shading by Project
- Historic Areas of Primary Importance
- Historic Resource Sites (only affected sites numbered)
  1. 814 Alice Street
  2. 807-825 Jackson Street
  3. 200-214 8th Street
  4. 712 Alice Street
  5. 227 8th Street
  6. 228 7th Street
  7. 194-196 7th Street
  8. 171-173 8th Street
  9. 165 8th Street
  10. 176 7th Street
  11. 157-159 8th Street
  12. 733 Madison Street
  13. 717 Madison Street
  14. 187-189 10th Street
  15. 924-930 Madison Street
  16. 132 9th Street
  17. 100 9th Street
  18. 94 9th Street (St. George Church)
  19. 912-920 Oak Street
  20. 79-85 10th Street
  21. 80-90 9th Street
  22. 59 10th Street
  23. 1000 Oak Street
- Solar Collector Sites (only affected sites numbered)
  1. 211 8th Street
  2. 625 Madison Street
  3. 162 9th Street
  4. 100 9th Street
  5. 71 10th Street
- Parks and Open Spaces
  1. Madison Park



SUMMER SOLSTICE
JUNE 21

9:00 AM

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Summer Solstice

A2-P

LEGEND

- Proposed Project
- Existing/Current Shadows
- New Shading by Project
- Historic Areas of Primary Importance
- Historic Resource Sites (only affected sites numbered)
  1. 814 Alice Street
  2. 807-825 Jackson Street
  3. 200-214 8th Street
  4. 712 Alice Street
  5. 227 8th Street
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  7. 194-196 7th Street
  8. 171-173 8th Street
  9. 165 8th Street
  10. 176 7th Street
  11. 157-159 8th Street
  12. 733 Madison Street
  13. 717 Madison Street
  14. 187-189 10th Street
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  16. 132 9th Street
  17. 100 9th Street
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  21. 80-90 9th Street
  22. 59 10th Street
  23. 1000 Oak Street
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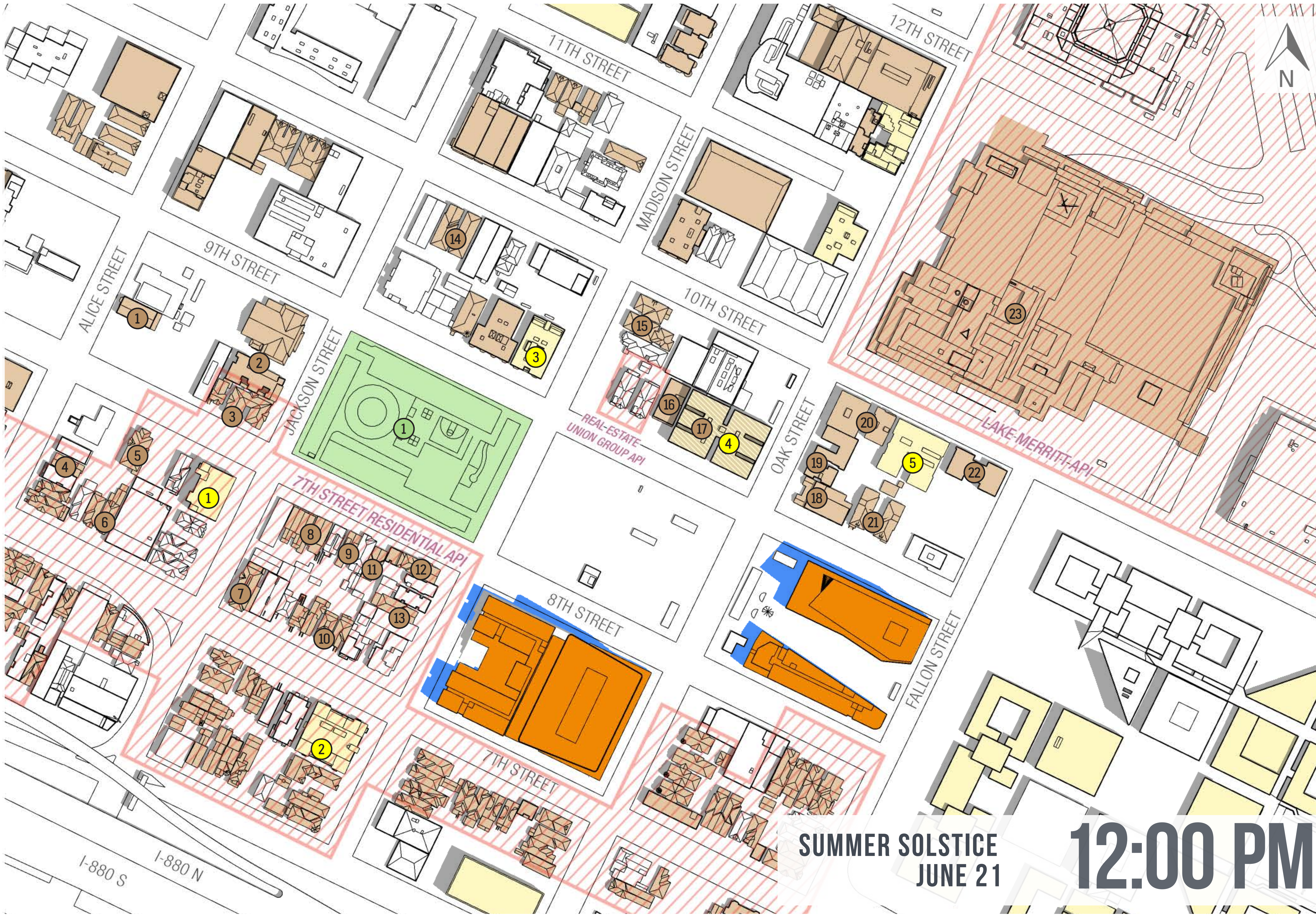
  2. 625 Madison Street
  3. 162 9th Street
  4. 100 9th Street
  5. 71 10th Street
- Parks and Open Spaces
  1. Madison Park



SUMMER SOLSTICE
JUNE 21

12:00 PM

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Summer Solstice

A3-P

LEGEND

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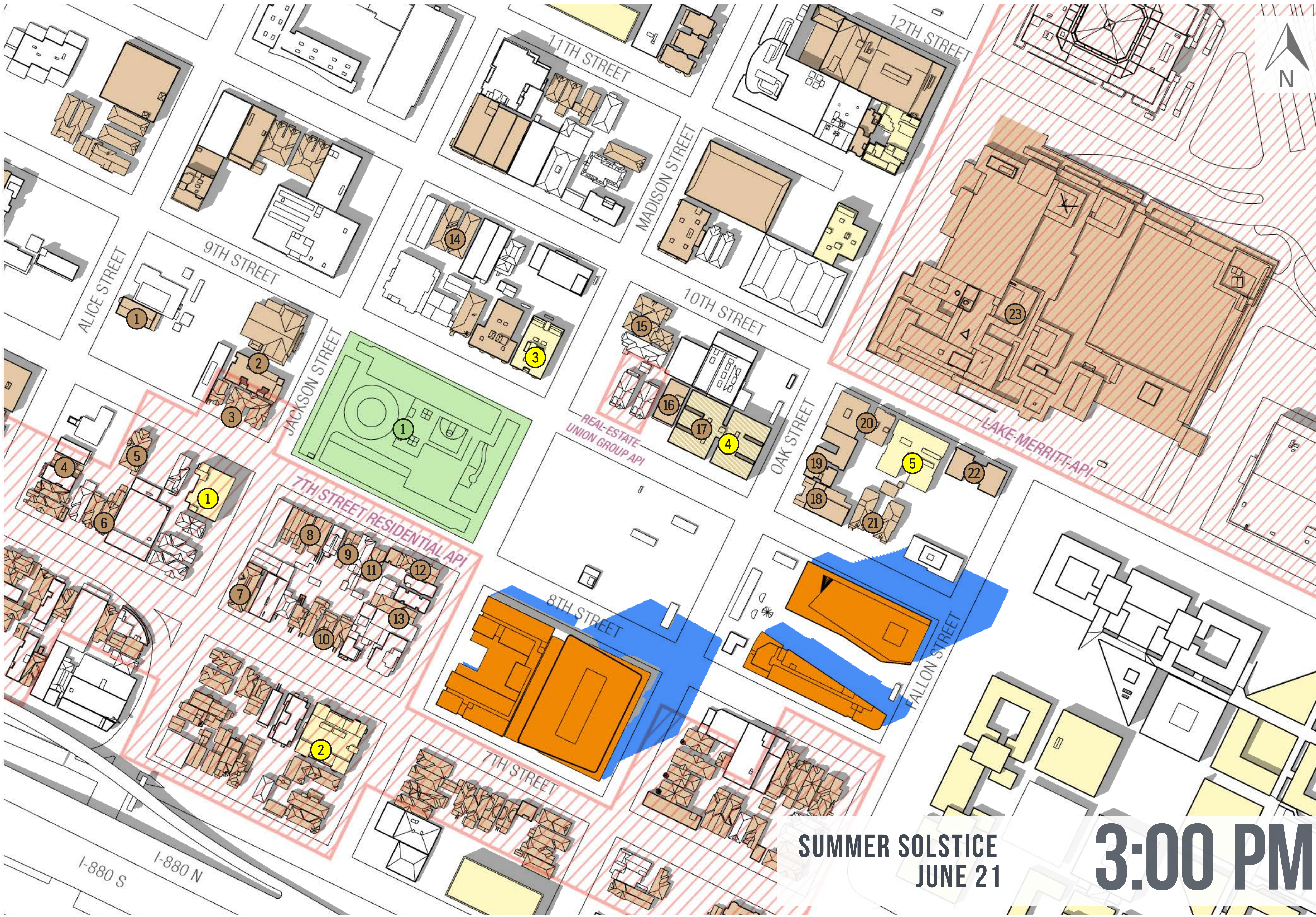

SUMMER SOLSTICE
JUNE 21

3:00 PM

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Vernal/Autumnal Equinoxes

B1-P

LEGEND

- Proposed Project
- Existing/Current Shadows
- New Shading by Project
- Historic Areas of Primary Importance
- Historic Resource Sites (only affected sites numbered)
  1. 814 Alice Street
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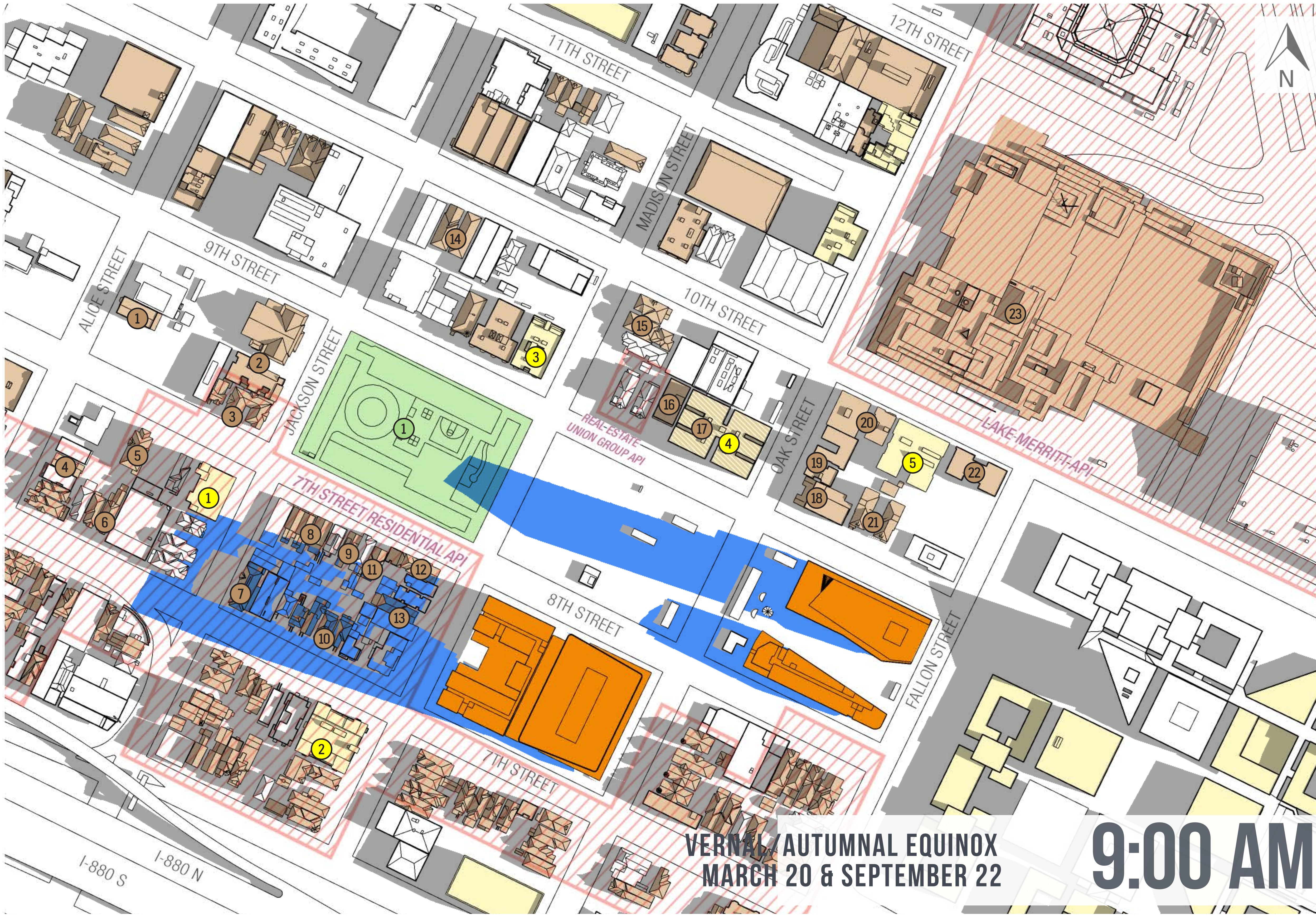

VERNAL/AUTUMNAL EQUINOX
MARCH 20 & SEPTEMBER 22

9:00 AM

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Vernal/Autumnal Equinoxes

B2-P

LEGEND

- Proposed Project
- Existing/Current Shadows
- New Shading by Project

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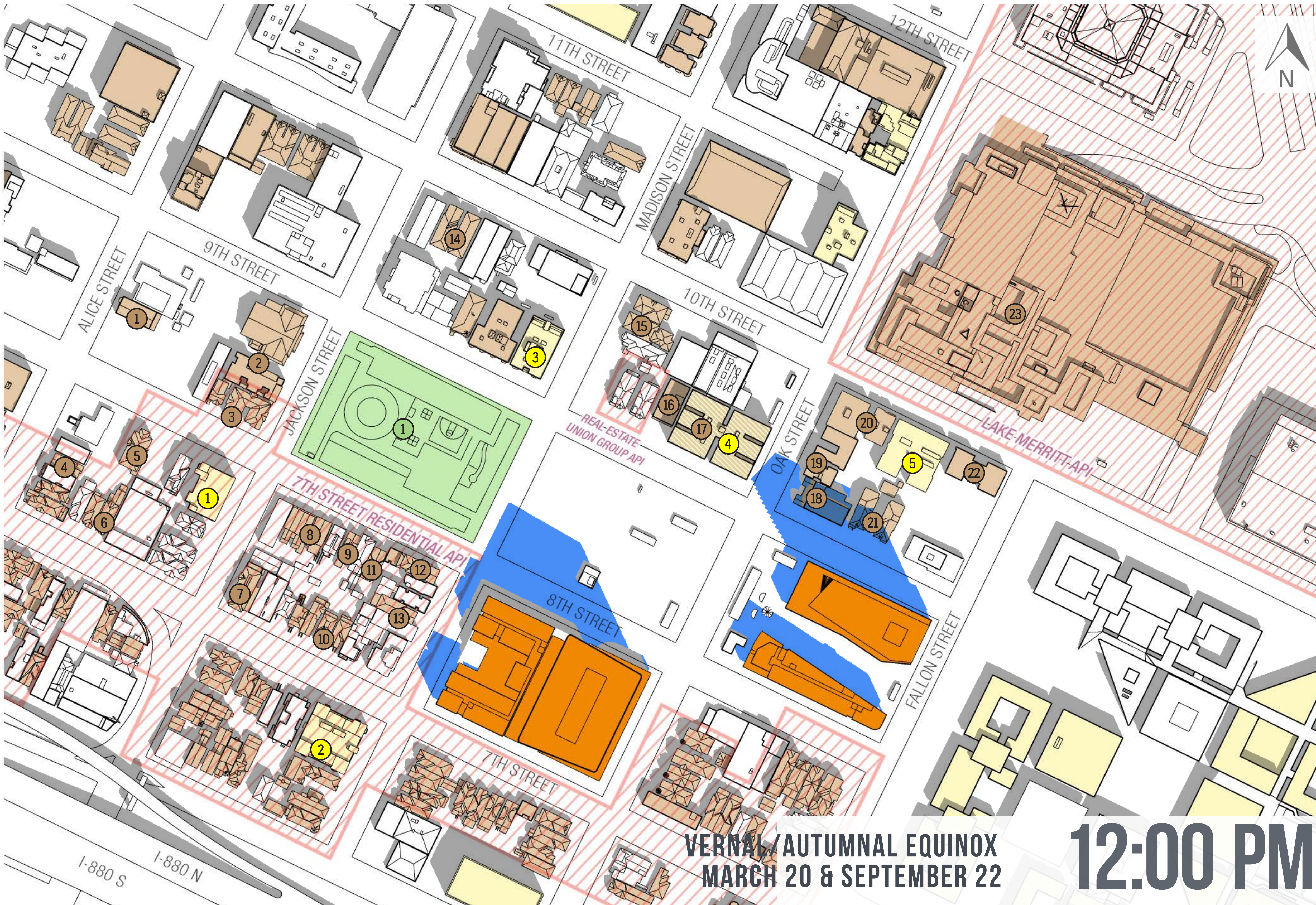

VERNAL/AUTUMNAL EQUINOX
MARCH 20 & SEPTEMBER 22

12:00 PM

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Vernal/Autumnal Equinoxes

B3-P

LEGEND

- Proposed Project
- Existing/Current Shadows
- New Shading by Project

- Historic Areas of Primary Importance

Historic Resource Sites
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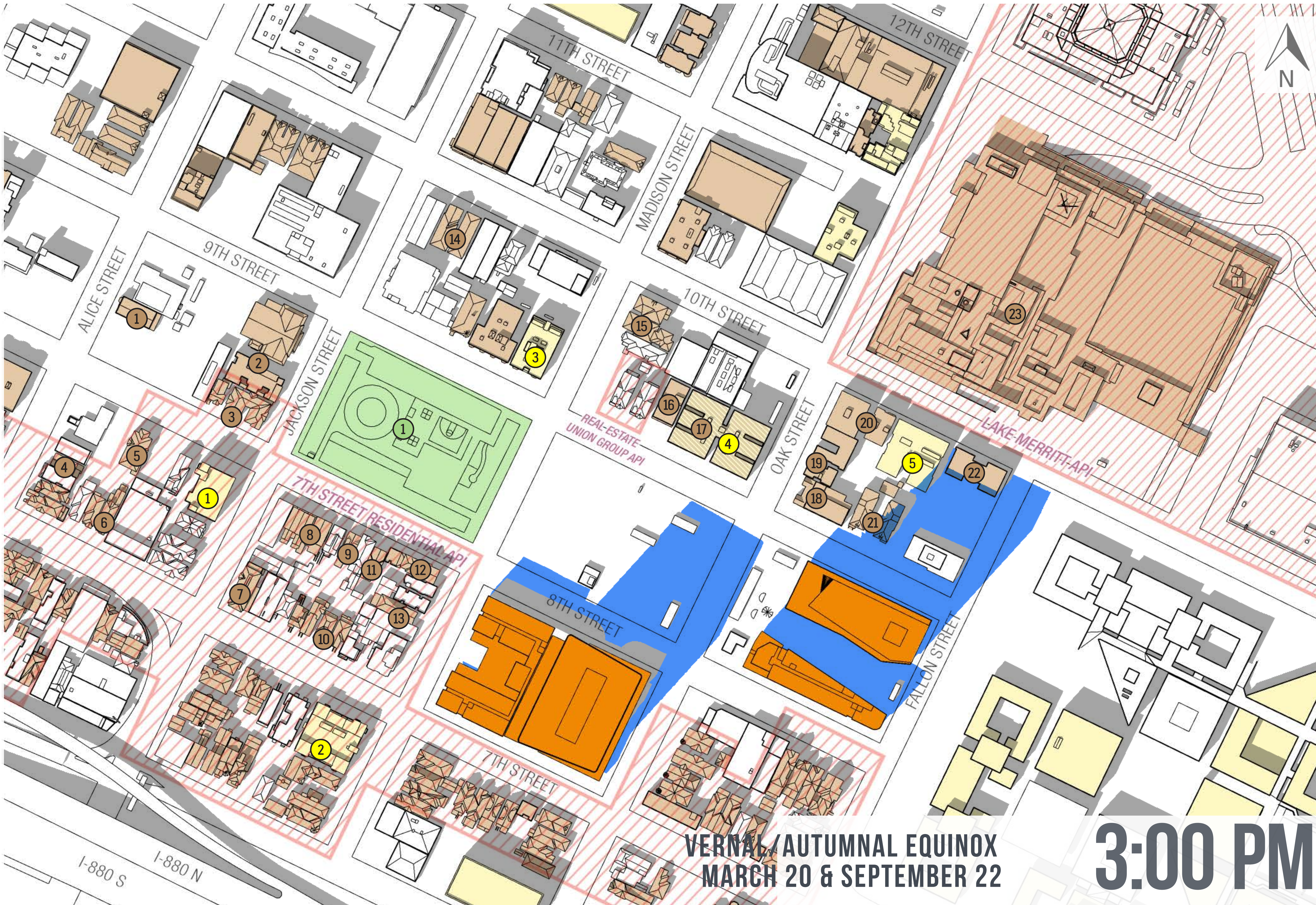
Parks and Open Spaces

1. Madison Park



VERNAL/AUTUMNAL EQUINOX
MARCH 20 & SEPTEMBER 22

3:00 PM

PREVISION
DESIGN

LAKE MERRITT BART

Shading diagrams on the Winter Solstice

C1-P

LEGEND

- Proposed Project
- Existing/Current Shadows
- New Shading by Project
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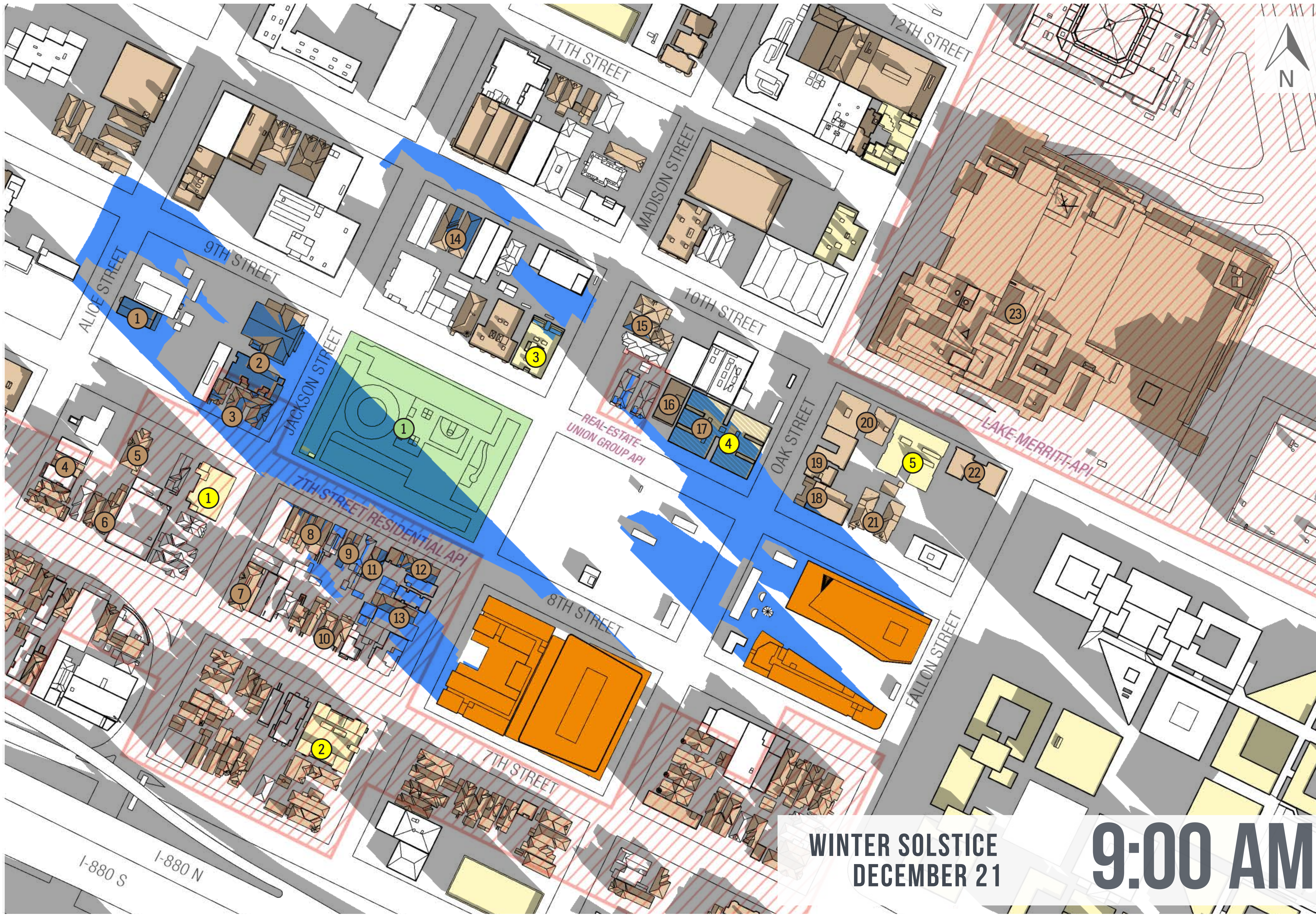

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Winter Solstice

C2-P

LEGEND

Proposed Project

Existing/Current Shadows

New Shading by Project

Historic Areas of Primary Importance

Historic Resource Sites
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Parks and Open Spaces

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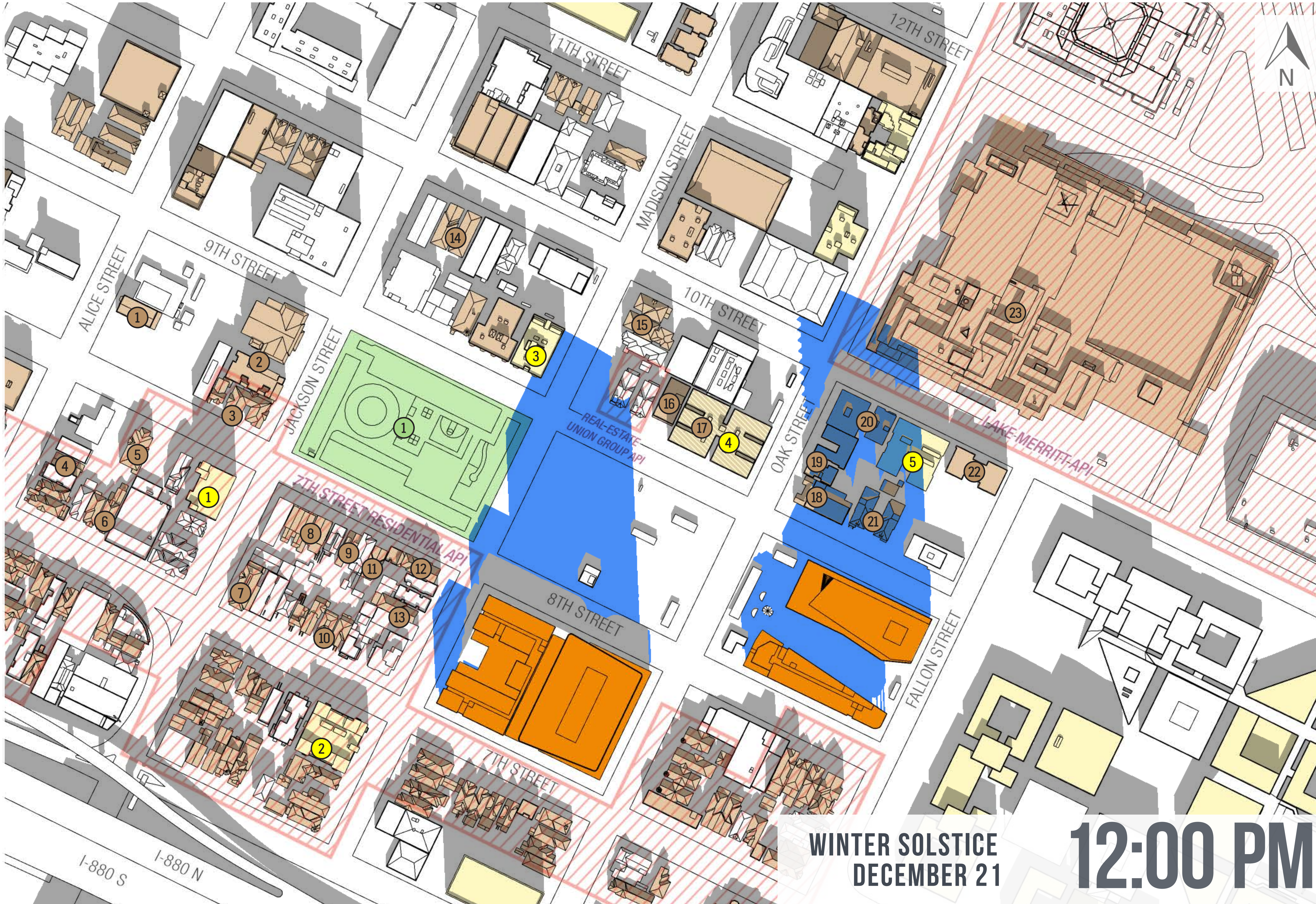

WINTER SOLSTICE
DECEMBER 21

12:00 PM

PREVISION DESIGN

LAKE MERRITT BART

Shading diagrams on the Winter Solstice

C3-P

LEGEND

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- Existing/Current Shadows
- New Shading by Project
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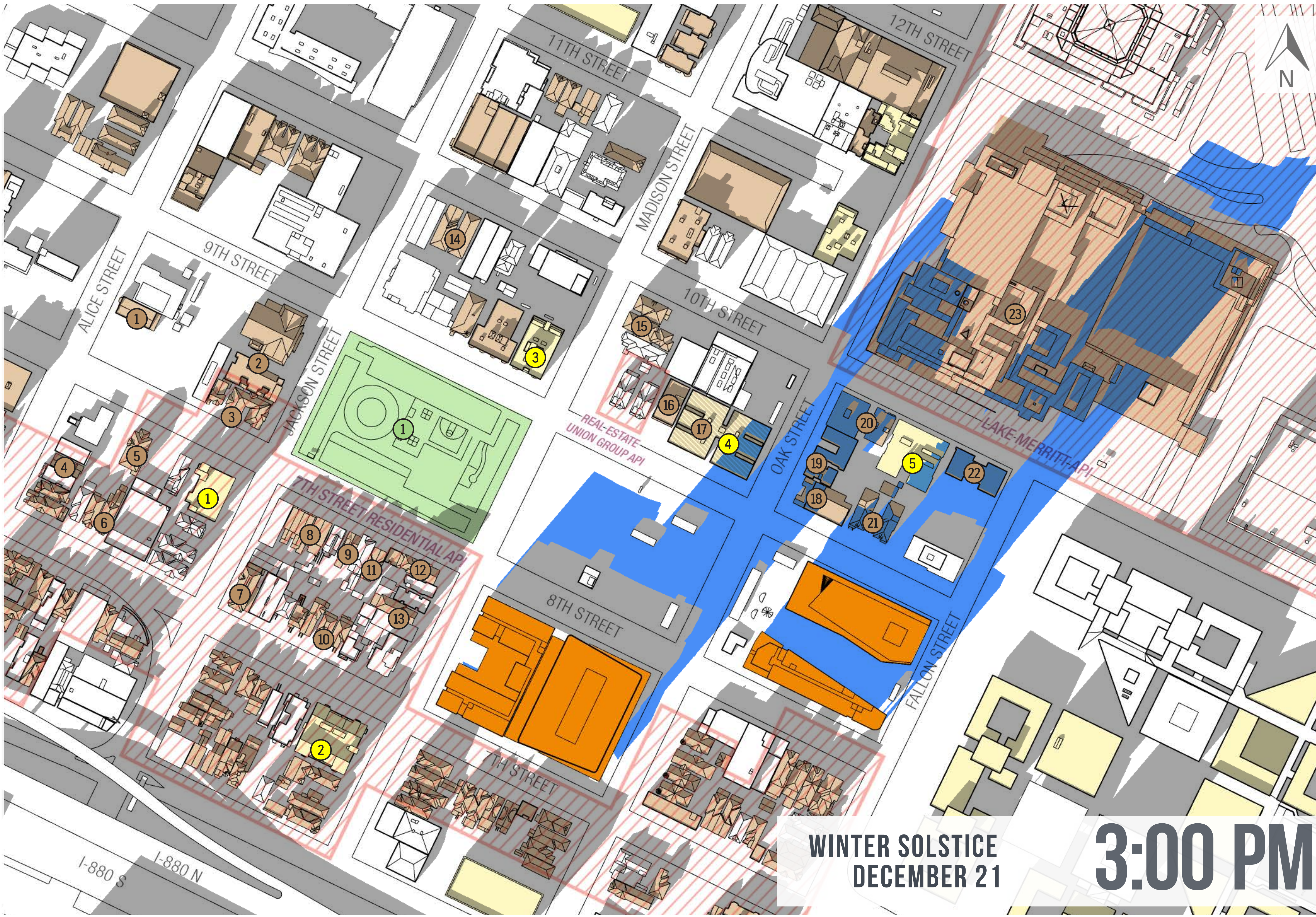

WINTER SOLSTICE
DECEMBER 21

3:00 PM

APPENDIX B

Wind Technical Report

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REPORT

LAKE MERRITT BART TRANSIT-ORIENTED DEVELOPMENT (TOD) PROJECT

OAKLAND, CA

PEDESTRIAN WIND STUDY
RWDI # 1902407
April 28, 2021

SUBMITTED TO

Elizabeth Kanner
Senior Managing Associate
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SUBMITTED BY

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T: 519.823.1311
F: 519.823.1316

EXECUTIVE SUMMARY

RWDI was retained to conduct a pedestrian wind assessment for the proposed Lake Merritt BART Transit-Oriented Development (TOD) Project in Oakland, CA (Image 1). Based on our wind-tunnel testing for the proposed development under the Existing and Existing + Project configurations (Images 2A and 2B) and the local wind records (Image 3), the potential wind hazard conditions are predicted as shown on site plans in Figures 1A and 1B, while the associated wind speeds are listed in Table 1.

These results can be summarized as follows:

- Existing wind speeds comply with the significant threshold criterion at all 119 test locations.
- With the addition of the proposed Phase 1 and Phase 2 buildings to both sites (i.e., Existing + Project), wind speeds are still anticipated to comply with the significant threshold criterion at all 121 test locations.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

RWDI was retained to conduct a pedestrian wind assessment for the proposed Lake Merritt BART Transit-Oriented Development (TOD) Project in Oakland, CA. This report presents the project objectives, background and approach, and discusses the results of RWDI's assessment.

1.1 Project Description

The Phase 1 project site (shown in Image 1) includes the 28-story residential Tower A, 7-story senior living Building B, and is bounded by Oak Street to the west, Fallon Street to the east, and 8th and 9th Streets to the south and north, respectively. The Phase 2 site lies directly to the west of the Phase 1 site, includes the 19-story office Tower C, 7-story affordable housing Building D, and is bounded by Madison Street to the west, Oak Street to the east, and 7th and 8th Streets to the south and north, respectively.

Image 1: Aerial View of Existing Site and Surroundings (Photo Courtesy of Google™ Earth)

1.2 Objectives

The objective of the study was to assess the effect of the proposed development on local conditions in pedestrian areas on and around the study site and provide recommendations for minimizing adverse effects, if needed. This quantitative assessment was based on wind speed measurements on a scale model of the project and its surroundings in one of RWDI's boundary-layer wind tunnels. These measurements were combined with the local wind records and compared to appropriate criteria for gauging wind hazard in pedestrian areas. The assessment focused on critical pedestrian areas, including main entrances and public sidewalks and walkways.

2 BACKGROUND AND APPROACH

2.1 Wind Tunnel Study Model

To assess the wind environment around the proposed project, a 1:400 scale model of the project site and surroundings was constructed for the wind tunnel tests of the following configurations:

A – Existing:	Existing site with existing surroundings and existing street trees (Image 2A), and,
B – Existing+ Project:	Proposed project with existing surroundings and existing street trees (Image 2B).

The wind tunnel model included all relevant surrounding buildings and topography within an approximate 1600 ft radius of the study site. The wind and turbulence profiles in the atmospheric boundary layer beyond the modelled area were also simulated in RWDI's wind tunnel. The wind tunnel model was instrumented with 122 wind speed sensors to measure mean and gust speeds at a full-scale height of approximately 5 ft above local grade in pedestrian areas throughout the study site. Wind speeds were measured for 36 directions in 10° increments. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the mean wind speed at a reference height above the model. The placement of wind measurement locations was based on our experience and understanding of the pedestrian usage for this site and reviewed by the design team.

Image 2A: Wind Tunnel Study Model – Existing Configuration

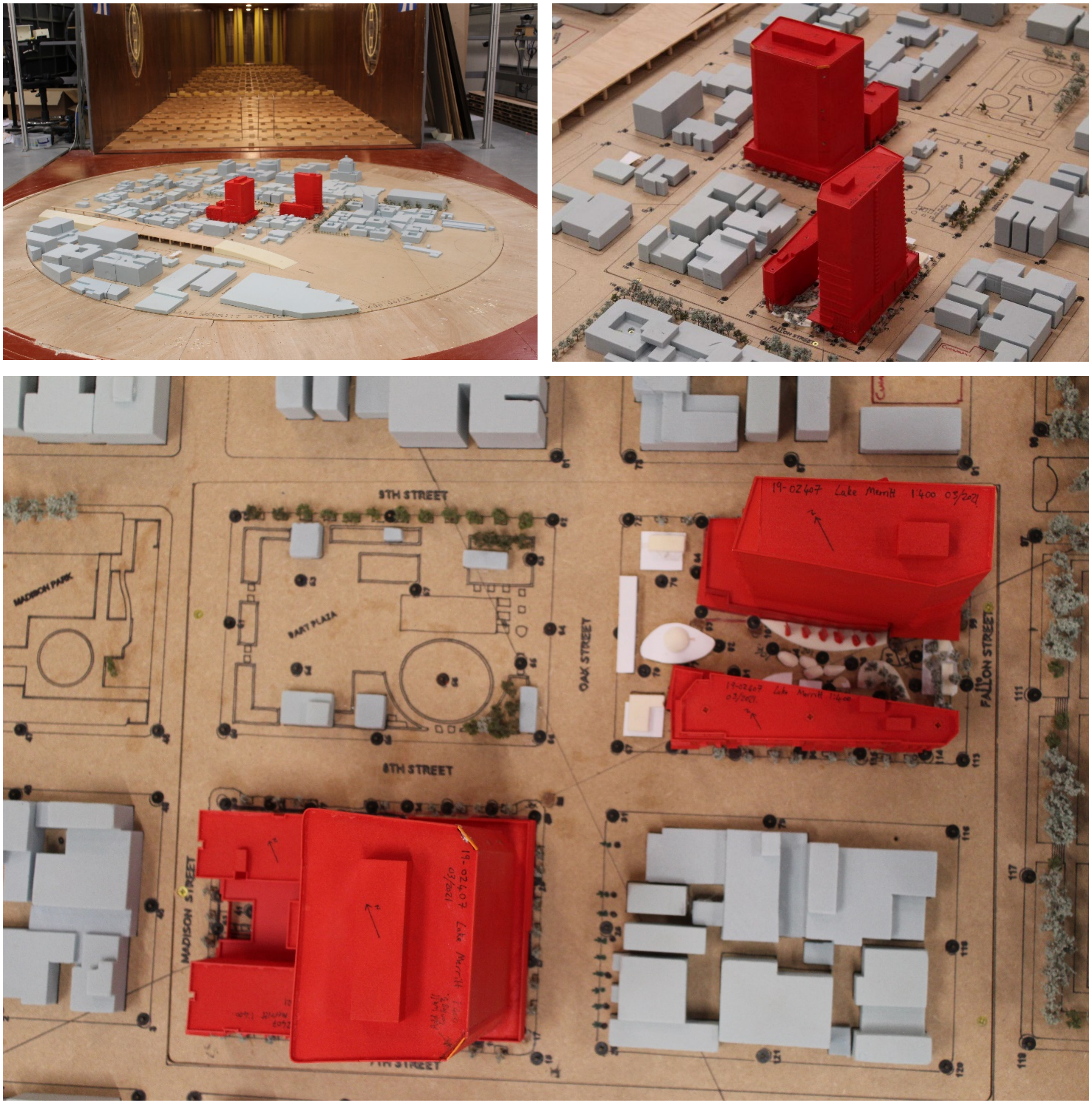
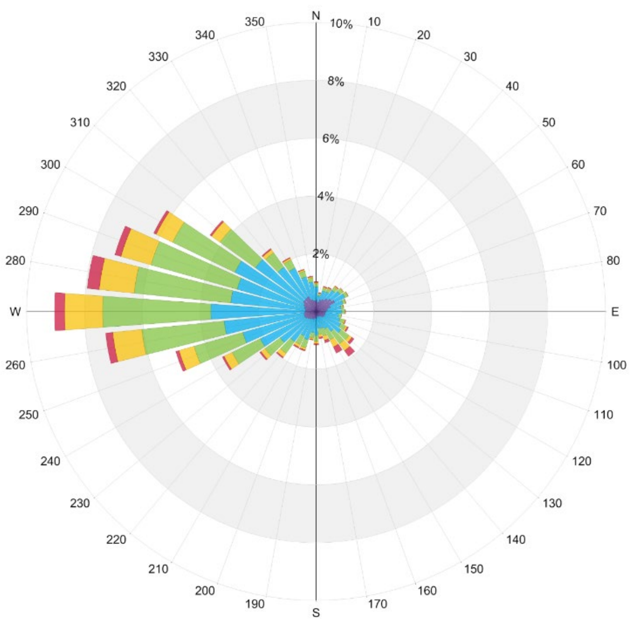


Image 2B: Wind Tunnel Study Model – Existing + Project Configuration

2.2 Meteorological Data

Wind statistics recorded at Metropolitan Oakland International Airport between 1988 and 2018 were analyzed for annual wind conditions. Image 3 graphically depicts the directional distributions of annual wind frequencies and speeds. As indicated by the wind rose, winds are frequent from the northwest through west-southwest throughout the year, with strong-but-infrequent winds originating from the southeast. Strong winds of a mean speed greater than 15 mph, measured at the airport (at an anemometer height of 33 feet), occur 11.5% of the time annually.

Wind statistics from Metropolitan Oakland International Airport were combined with the wind tunnel data to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with the City of Oakland Significant Wind Impact Criterion.



Annual Winds

Wind Speed (mph)	Probability (%)
Calm	11.7
1-5	13.9
6-10	36.5
11-15	26.5
16-20	8.7
>20	2.8

Image 3: Directional Distribution of Winds Approaching Metropolitan Oakland International Airport from 1988 to 2018

2.3 Significant Threshold Criterion

Significant Threshold

A wind analysis needs to be done if the height of the project is 100 feet or greater (measured to the roof) and one of the following conditions exists: (a) the project is located adjacent to a substantial water body (i.e. Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located Downtown. Since the proposed projects (roughly 275 ft tall for both phases) both exceed 100 feet in height and are located Downtown, they are subject to the thresholds of significance.

For the purposes of this study, the City of Oakland considers a significant wind impact to occur if a project were to "Create winds exceeding 36 mph for more than one hour during daylight hours during the year". Equivalent wind speeds (EWS) were calculated using the average wind speed (mean velocity) adjusted to include the level of gustiness and turbulence. In the formula below, the mean wind speed is increased when the turbulence intensity is greater than 15%:

$$\boldsymbol{EWS} = \boldsymbol{V_m} \times (\boldsymbol{2} \times \boldsymbol{TI} + \boldsymbol{0.7})$$

where $\boldsymbol{EWS}$ = equivalent wind speed

$\boldsymbol{V_m}$ = mean pedestrian-level wind speed

$\boldsymbol{TI}$ = turbulence intensity

3 RESULTS AND DISCUSSION

This section presents the results of the wind tunnel measurements analyzed in terms of equivalent wind speeds as defined by the equation in Section 2.3. The text of the report simply refers to the data as wind speeds.

The hazard results for the configurations tested are graphically depicted on site plans in Figures 1A and 1B, located in the "*Figures*" sections of this report, where locations have been color-coded according to the applicable wind hazard criterion explained in Section 2.3 for the Significant Threshold Criterion. These same data are also numerically depicted in Table 1, located in the "*Tables*" section of this report.

For each measurement point, the predicted wind speed to be exceeded one hour per year is listed. The predicted number of hours per year that the Significant Threshold Criterion (one-minute wind speed of 36 mph) is exceeded is also provided. A letter "e" in the last column of each configuration shown in Table 1 indicates a wind hazard exceedance.

Measurement points #36 and #41 are covered by the existing building on the Phase 2 site and are therefore indicted by a "-" in the "Existing" column in Table 1. Measurement point #56 is located in area that is not accessible to pedestrians and has thereby been removed from Table 1 altogether (indicated by a "-" for both configurations). This measurement point was originally included for general coverage of the surrounding areas; however, given its location below grade in the BART entrance, it was determined not to be relevant to the pedestrian wind results presented herein.

3.1 Existing Configuration

Existing wind speeds, with existing street trees around both sites, comply with the significant threshold criterion at all 119 test locations (Figure 1A and Table 1). The average wind speed which is exceeded for 1 hour per year is 21 mph (Table 1).

3.2 Existing + Project Configuration

With the addition of the proposed project to the site in the Existing + Project configuration, and with existing street trees around both sites, wind speeds are still anticipated to comply with the significant threshold criterion at all 121 test locations (Figure 1B and Table 1). The average wind speed which is exceeded for 1 hour per year is 27 mph (Table 1).

4 APPLICABILITY OF RESULTS

The wind conditions presented in this report pertain to the model of the proposed Lake Merritt BART Transit-Oriented Development (TOD) Project, constructed using the drawings and information listed below. Should there be any design changes that deviate from this list of drawings, the predicted wind conditions may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

File Name	File Type	Date Received (mm/dd/yyyy)
0301_2021_LMBART_BUILDING A C & Site Model Combined-SCB.skp	SketchUp	03/03/2021

FIGURES

Pedestrian Wind Hazard Conditions
Existing
Annual

Lake Merritt BART Transit-Oriented Development (TOD) Project - Oakland, CA

True North

Project #1902407

Drawn by: DF	Figure: 1A
Approx. Scale: 1"=120'	
Date Revised: Apr. 26, 2021	

Pedestrian Wind Hazard Conditions
Existing + Project
Annual

Lake Merritt BART Transit-Oriented Development (TOD) Project - Oakland, CA

Project #1902407

Drawn by: DF	Figure: 1B
Approx. Scale:	1"=120'
Date Revised:	Apr. 26, 2021

TABLES

Table 1: Wind Hazard Conditions

Location	Existing			Existing + Project			
	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds
1	19	0		21	0	0	
2	19	0		22	0	0	
3	20	0		27	0	0	
4	26	0		28	0	0	
5	21	0		19	0	0	
6	24	0		24	0	0	
7	27	0		27	0	0	
8	23	0		25	0	0	
9	22	0		25	0	0	
10	19	0		35	0	0	
11	18	0		33	0	0	
12	18	0		26	0	0	
13	19	0		27	0	0	
14	20	0		20	0	0	
15	20	0		23	0	0	
16	22	0		24	0	0	
17	20	0		31	0	0	
18	21	0		31	0	0	
19	26	0		26	0	0	
20	31	0		34	0	0	
21	29	0		30	0	0	
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26	22	0		34	0	0	
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28	18	0		23	0	0	
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36	-	-	-	21	0	-	
37	15	0		26	0	0	
38	16	0		25	0	0	
39	22	0		30	0	0	
40	19	0		23	0	0	
41	-	-	-	14	0	-	
42	17	0		21	0	0	
43	19	0		18	0	0	
44	20	0		16	0	0	
45	21	0		35	0	0	
46	19	0		22	0	0	
47	20	0		21	0	0	

Table 1: Wind Hazard Conditions

Location	Existing			Existing + Project			
	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds
48	22	0		24	0	0	
49	25	0		26	0	0	
50	18	0		26	0	0	
51	23	0		25	0	0	
52	21	0		22	0	0	
53	22	0		26	0	0	
54	22	0		23	0	0	
55	22	0		35	0	0	
56	-	-	-	-	-	-	-
57	21	0		26	0	0	
58	18	0		21	0	0	
59	26	0		30	0	0	
60	28	0		35	0	0	
61	22	0		29	0	0	
62	19	0		32	0	0	
63	18	0		28	0	0	
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65	22	0		32	0	0	
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76	19	0		30	0	0	
77	20	0		32	0	0	
78	18	0		18	0	0	
79	22	0		35	0	0	
80	19	0		18	0	0	
81	18	0		30	0	0	
82	19	0		30	0	0	
83	20	0		33	0	0	
84	18	0		26	0	0	
85	17	0		29	0	0	
86	18	0		21	0	0	
87	19	0		34	0	0	
88	19	0		20	0	0	
89	18	0		21	0	0	
90	19	0		30	0	0	
91	22	0		28	0	0	
92	22	0		23	0	0	
93	21	0		19	0	0	
94	22	0		18	0	0	

Table 1: Wind Hazard Conditions

Location	Existing			Existing + Project			
	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds
95	22	0		19	0	0	
96	20	0		25	0	0	
97	20	0		29	0	0	
98	20	0		29	0	0	
99	17	0		30	0	0	
100	19	0		32	0	0	
101	19	0		28	0	0	
102	20	0		28	0	0	
103	18	0		24	0	0	
104	19	0		32	0	0	
105	21	0		30	0	0	
106	20	0		23	0	0	
107	20	0		27	0	0	
108	21	0		29	0	0	
109	20	0		20	0	0	
110	18	0		34	0	0	
111	21	0		35	0	0	
112	23	0		21	0	0	
113	24	0		34	0	0	
114	23	0		25	0	0	
115	20	0		17	0	0	
116	26	0		26	0	0	
117	22	0		23	0	0	
118	22	0		22	0	0	
119	24	0		23	0	0	
120	23	0		22	0	0	
121	23	0		23	0	0	
122	22	0		21	0	0	

Summary	Average (mph)	Total Hours	Total	Average (mph)	Total Hours	Hours Change	Total
	21	**0**	**0 ---- 119**	**27**	**0**	**0**	**0 ---- 121**

APPENDIX C
Air Quality Tables

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CalEEmod Outputs Construction

Lake Merritt BART STation Redevelopment Project Construction Phase 1

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	457.00	Dwelling Unit	1.38	396,180.00	1307
Strip Mall	7.57	1000sqft	0.00	7,565.00	0
General Office Building	33.20	1000sqft	0.00	33,200.00	0
Enclosed Parking with Elevator	100.00	Space	0.00	36,510.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised PG&e factoir to match latest available http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

Land Use - Adjust Acreage and square footage to match PD.

Construction Phase - Adjust construction schedule to match RFI response from applicant.

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Grading - CalEEMod populated graded acres. Default is zero.

Demolition -

Trips and VMT - Vehicle trips provided by applicant

Architectural Coating - Adjusted interoir VOC content to reflect BAAQMD regulation 8 Rule 3

Vehicle Trips - Construction run only. No opertaional emissions.

Woodstoves - Construction run only. No opertaional emissions.

Consumer Products - Construction run only. No opertaional emissions.

Area Coating - Construction run only. No opertaional emissions.

Landscape Equipment - Construction run only. No opertaional emissions.

Energy Use - Construction run only. No opertaional emissions.

Water And Wastewater - Construction run only. No opertaional emissions.

Solid Waste - Construction run only. No opertaional emissions.

Construction Off-road Equipment Mitigation - Tier 4 equipment to be required per City of Oakland SCA

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	200.00	549.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	4.00	41.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	2.00	24.00
tblConstructionPhase	PhaseEndDate	2/7/2023	8/15/2024
tblConstructionPhase	PhaseEndDate	1/10/2023	7/17/2024
tblConstructionPhase	PhaseEndDate	3/28/2022	3/15/2022

tblConstructionPhase	PhaseEndDate	4/5/2022	6/10/2022
tblConstructionPhase	PhaseEndDate	1/24/2023	9/15/2024
tblConstructionPhase	PhaseEndDate	3/30/2022	4/15/2022
tblConstructionPhase	PhaseStartDate	1/25/2023	7/17/2024
tblConstructionPhase	PhaseStartDate	4/6/2022	6/10/2022
tblConstructionPhase	PhaseStartDate	3/31/2022	4/15/2022
tblConstructionPhase	PhaseStartDate	1/11/2023	8/15/2024
tblConstructionPhase	PhaseStartDate	3/29/2022	3/15/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.58	0.00
tblEnergyUse	LightingElect	4.88	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	0.19	0.00
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tblEnergyUse	T24E	426.45	0.00
tblEnergyUse	T24E	3.92	0.00
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tblFireplaces	NumberGas	68.55	0.00
tblFireplaces	NumberWood	77.69	0.00

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tblGrading	AcresOfGrading	0.00	1.00
tblGrading	MaterialExported	0.00	6,500.00
tblLandUse	LandUseSquareFeet	457,000.00	396,180.00
tblLandUse	LandUseSquareFeet	40,000.00	36,510.00
tblLandUse	LotAcreage	7.37	1.38
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	0.76	0.00
tblLandUse	LotAcreage	0.90	0.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
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tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblSolidWaste	SolidWasteGenerationRate	210.22	0.00
tblSolidWaste	SolidWasteGenerationRate	30.88	0.00
tblSolidWaste	SolidWasteGenerationRate	7.95	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	8,235.00
tblTripsAndVMT	HaulingTripNumber	129.00	165.00
tblTripsAndVMT	HaulingTripNumber	643.00	1,435.00
tblTripsAndVMT	HaulingTripNumber	0.00	240.00
tblTripsAndVMT	HaulingTripNumber	0.00	240.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	62.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	WorkerTripNumber	71.00	45.00
tblTripsAndVMT	WorkerTripNumber	357.00	35.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
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tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	IndoorWaterUseRate	29,775,389.71	0.00
tblWater	IndoorWaterUseRate	5,900,760.43	0.00
tblWater	IndoorWaterUseRate	560,728.99	0.00
tblWater	OutdoorWaterUseRate	18,771,441.34	0.00
tblWater	OutdoorWaterUseRate	3,616,595.10	0.00
tblWater	OutdoorWaterUseRate	343,672.61	0.00
tblWoodstoves	NumberCatalytic	9.14	0.00
tblWoodstoves	NumberNoncatalytic	9.14	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1283	1.6265	1.3067	3.9600e-003	0.1139	0.0516	0.1655	0.0281	0.0482	0.0763	0.0000	362.8046	362.8046	0.0583	0.0000	364.2620
2023	0.1416	1.6237	1.4936	4.3300e-003	0.1016	0.0558	0.1573	0.0269	0.0520	0.0789	0.0000	394.8258	394.8258	0.0641	0.0000	396.4271
2024	2.0933	0.9487	0.9387	2.7100e-003	0.0872	0.0310	0.1182	0.0227	0.0290	0.0517	0.0000	246.8003	246.8003	0.0384	0.0000	247.7599
Maximum	**2.0933**	**1.6265**	**1.4936**	**4.3300e-003**	**0.1139**	**0.0558**	**0.1655**	**0.0281**	**0.0520**	**0.0789**	**0.0000**	**394.8258**	**394.8258**	**0.0641**	**0.0000**	**396.4271**

1008.4

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0577	0.9967	1.4927	3.9600e-003	0.1139	4.9300e-003	0.1188	0.0281	4.8500e-003	0.0329	0.0000	362.8044	362.8044	0.0583	0.0000	364.2618
2023	0.0643	1.0164	1.6883	4.3300e-003	0.1016	4.5900e-003	0.1061	0.0269	4.5500e-003	0.0314	0.0000	394.8256	394.8256	0.0641	0.0000	396.4269
2024	2.0481	0.6068	1.0587	2.7100e-003	0.0872	2.8500e-003	0.0901	0.0227	2.8200e-003	0.0255	0.0000	246.8002	246.8002	0.0384	0.0000	247.7598
Maximum	**2.0481**	**1.0164**	**1.6883**	**4.3300e-003**	**0.1139**	**4.9300e-003**	**0.1188**	**0.0281**	**4.8500e-003**	**0.0329**	**0.0000**	**394.8256**	**394.8256**	**0.0641**	**0.0000**	**396.4269**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**8.18**	**37.61**	**-13.39**	**0.00**	**0.00**	**91.06**	**28.57**	**0.00**	**90.54**	**56.56**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**

1	**3-1-2022**	**5-31-2022**	0.5205	0.2898
2	**6-1-2022**	**8-31-2022**	0.5307	0.3316
3	**9-1-2022**	**11-30-2022**	0.5137	0.3162
4	**12-1-2022**	**2-28-2023**	0.4619	0.2836
5	**3-1-2023**	**5-31-2023**	0.4454	0.2724
6	**6-1-2023**	**8-31-2023**	0.4448	0.2717
7	**9-1-2023**	**11-30-2023**	0.4413	0.2701
8	**12-1-2023**	**2-29-2024**	0.4269	0.2695
9	**3-1-2024**	**5-31-2024**	0.4224	0.2705
10	**6-1-2024**	**8-31-2024**	2.2453	2.1355
11	**9-1-2024**	**9-30-2024**	0.0413	0.0151
		Highest	2.2453	2.1355

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2022	3/15/2022	5	11	
2	Site Preparation	Site Preparation	3/15/2022	4/15/2022	5	24	
3	Grading	Grading	4/15/2022	6/10/2022	5	41	
4	Building Construction	Building Construction	6/10/2022	7/17/2024	5	549	
5	Architectural Coating	Architectural Coating	7/17/2024	8/15/2024	5	22	
6	Paving	Paving	8/15/2024	9/15/2024	5	22	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 802,265; Residential Outdoor: 267,422; Non-Residential Indoor: 61,148; Non-Residential Outdoor: 20,383; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	4.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	0	6.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Graders	0	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Building Construction	Welders	0	8.00	46	0.45
Demolition	Excavators	1	8.00	158	0.38
Site Preparation	Rough Terrain Forklifts	1	8.00	100	0.40
Site Preparation	Cranes	1	8.00	231	0.29

Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Rollers	1	8.00	80	0.38
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Aerial Lifts	3	8.00	63	0.31
Building Construction	Pumps	1	4.00	84	0.74
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Air Compressors	1	4.00	78	0.48
Paving	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Plate Compactors	1	8.00	8	0.43
Architectural Coating	Forklifts	1	5.00	89	0.20
Architectural Coating	Skid Steer Loaders	1	8.00	65	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	45.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	35.00	6.00	8,235.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	2	8.00	2.00	165.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	8.00	3.00	1,435.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	12.00	3.00	240.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	8.00	3.00	240.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0140	0.0000	0.0140	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0252	0.0381	6.0000e-005		1.3000e-003	1.3000e-003		1.2600e-003	1.2600e-003	0.0000	5.4519	5.4519	9.7000e-004	0.0000	5.4762
Total	**3.0800e-003**	**0.0252**	**0.0381**	**6.0000e-005**	**0.0140**	**1.3000e-003**	**0.0153**	**2.1200e-003**	**1.2600e-003**	**3.3800e-003**	**0.0000**	**5.4519**	**5.4519**	**9.7000e-004**	**0.0000**	**5.4762**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2000e-004	0.0205	4.0200e-003	6.0000e-005	1.4000e-003	6.0000e-005	1.4600e-003	3.8000e-004	6.0000e-005	4.4000e-004	0.0000	6.1550	6.1550	3.0000e-004	0.0000	6.1625
Vendor	3.0000e-005	1.1200e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2854	0.2854	2.0000e-005	0.0000	0.2857
Worker	1.3000e-004	9.0000e-005	9.6000e-004	0.0000	3.5000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2877	0.2877	1.0000e-005	0.0000	0.2878
Total	**7.8000e-004**	**0.0217**	**5.2100e-003**	**6.0000e-005**	**1.8200e-003**	**6.0000e-005**	**1.8800e-003**	**4.9000e-004**	**6.0000e-005**	**5.5000e-004**	**0.0000**	**6.7280**	**6.7280**	**3.3000e-004**	**0.0000**	**6.7361**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0140	0.0000	0.0140	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9000e-004	3.0100e-003	0.0428	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	5.4519	5.4519	9.7000e-004	0.0000	5.4761
Total	**6.9000e-004**	**3.0100e-003**	**0.0428**	**6.0000e-005**	**0.0140**	**9.0000e-005**	**0.0141**	**2.1200e-003**	**9.0000e-005**	**2.2100e-003**	**0.0000**	**5.4519**	**5.4519**	**9.7000e-004**	**0.0000**	**5.4761**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2000e-004	0.0205	4.0200e-003	6.0000e-005	1.4000e-003	6.0000e-005	1.4600e-003	3.8000e-004	6.0000e-005	4.4000e-004	0.0000	6.1550	6.1550	3.0000e-004	0.0000	6.1625
Vendor	3.0000e-005	1.1200e-003	2.3000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2854	0.2854	2.0000e-005	0.0000	0.2857
Worker	1.3000e-004	9.0000e-005	9.6000e-004	0.0000	3.5000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2877	0.2877	1.0000e-005	0.0000	0.2878
Total	**7.8000e-004**	**0.0217**	**5.2100e-003**	**6.0000e-005**	**1.8200e-003**	**6.0000e-005**	**1.8800e-003**	**4.9000e-004**	**6.0000e-005**	**5.5000e-004**	**0.0000**	**6.7280**	**6.7280**	**3.3000e-004**	**0.0000**	**6.7361**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.1302	0.1189	3.0000e-004		5.3300e-003	5.3300e-003		5.0500e-003	5.0500e-003	0.0000	26.4726	26.4726	6.6900e-003	0.0000	26.6399
Total	**0.0125**	**0.1302**	**0.1189**	**3.0000e-004**	**5.3000e-004**	**5.3300e-003**	**5.8600e-003**	**6.0000e-005**	**5.0500e-003**	**5.1100e-003**	**0.0000**	**26.4726**	**26.4726**	**6.6900e-003**	**0.0000**	**26.6399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.1000e-004	0.0298	5.8500e-003	9.0000e-005	2.0300e-003	8.0000e-005	2.1200e-003	5.6000e-004	8.0000e-005	6.4000e-004	0.0000	8.9528	8.9528	4.4000e-004	0.0000	8.9637
Vendor	1.0000e-004	3.6600e-003	7.6000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9339	0.9339	5.0000e-005	0.0000	0.9351
Worker	2.8000e-004	2.0000e-004	2.0900e-003	1.0000e-005	7.6000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.1000e-004	0.0000	0.6276	0.6276	1.0000e-005	0.0000	0.6280
Total	**1.2900e-003**	**0.0337**	**8.7000e-003**	**1.1000e-004**	**3.0300e-003**	**9.0000e-005**	**3.1200e-003**	**8.3000e-004**	**9.0000e-005**	**9.3000e-004**	**0.0000**	**10.5142**	**10.5142**	**5.0000e-004**	**0.0000**	**10.5267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5600e-003	0.0154	0.1629	3.0000e-004		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	26.4726	26.4726	6.6900e-003	0.0000	26.6399
Total	**3.5600e-003**	**0.0154**	**0.1629**	**3.0000e-004**	**5.3000e-004**	**4.7000e-004**	**1.0000e-003**	**6.0000e-005**	**4.7000e-004**	**5.3000e-004**	**0.0000**	**26.4726**	**26.4726**	**6.6900e-003**	**0.0000**	**26.6399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.1000e-004	0.0298	5.8500e-003	9.0000e-005	2.0300e-003	8.0000e-005	2.1200e-003	5.6000e-004	8.0000e-005	6.4000e-004	0.0000	8.9528	8.9528	4.4000e-004	0.0000	8.9637
Vendor	1.0000e-004	3.6600e-003	7.6000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.4000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9339	0.9339	5.0000e-005	0.0000	0.9351
Worker	2.8000e-004	2.0000e-004	2.0900e-003	1.0000e-005	7.6000e-004	0.0000	7.6000e-004	2.0000e-004	0.0000	2.1000e-004	0.0000	0.6276	0.6276	1.0000e-005	0.0000	0.6280
Total	**1.2900e-003**	**0.0337**	**8.7000e-003**	**1.1000e-004**	**3.0300e-003**	**9.0000e-005**	**3.1200e-003**	**8.3000e-004**	**9.0000e-005**	**9.3000e-004**	**0.0000**	**10.5142**	**10.5142**	**5.0000e-004**	**0.0000**	**10.5267**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1642	0.2393	3.6000e-004		8.7400e-003	8.7400e-003		8.0400e-003	8.0400e-003	0.0000	31.6284	31.6284	0.0102	0.0000	31.8842
Total	**0.0171**	**0.1642**	**0.2393**	**3.6000e-004**	**8.0000e-004**	**8.7400e-003**	**9.5400e-003**	**9.0000e-005**	**8.0400e-003**	**8.1300e-003**	**0.0000**	**31.6284**	**31.6284**	**0.0102**	**0.0000**	**31.8842**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4200e-003	0.1782	0.0350	5.5000e-004	0.0122	5.1000e-004	0.0127	3.3400e-003	4.8000e-004	3.8300e-003	0.0000	53.5300	53.5300	2.6100e-003	0.0000	53.5952

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Vendor	1.8000e-004	6.2500e-003	1.3100e-003	2.0000e-005	4.0000e-004	1.0000e-005	4.2000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.5954	1.5954	8.0000e-005	0.0000	1.5975
Worker	4.9000e-004	3.3000e-004	3.5800e-003	1.0000e-005	1.3000e-003	1.0000e-005	1.3100e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0721	1.0721	2.0000e-005	0.0000	1.0727
Total	**6.0900e-003**	**0.1848**	**0.0399**	**5.8000e-004**	**0.0139**	**5.3000e-004**	**0.0144**	**3.8000e-003**	**5.0000e-004**	**4.3100e-003**	**0.0000**	**56.1975**	**56.1975**	**2.7100e-003**	**0.0000**	**56.2654**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5900e-003	0.0671	0.2729	3.6000e-004		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	31.6284	31.6284	0.0102	0.0000	31.8841
Total	**5.5900e-003**	**0.0671**	**0.2729**	**3.6000e-004**	**8.0000e-004**	**5.9000e-004**	**1.3900e-003**	**9.0000e-005**	**5.9000e-004**	**6.8000e-004**	**0.0000**	**31.6284**	**31.6284**	**0.0102**	**0.0000**	**31.8841**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4200e-003	0.1782	0.0350	5.5000e-004	0.0122	5.1000e-004	0.0127	3.3400e-003	4.8000e-004	3.8300e-003	0.0000	53.5300	53.5300	2.6100e-003	0.0000	53.5952
Vendor	1.8000e-004	6.2500e-003	1.3100e-003	2.0000e-005	4.0000e-004	1.0000e-005	4.2000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.5954	1.5954	8.0000e-005	0.0000	1.5975
Worker	4.9000e-004	3.3000e-004	3.5800e-003	1.0000e-005	1.3000e-003	1.0000e-005	1.3100e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0721	1.0721	2.0000e-005	0.0000	1.0727
Total	**6.0900e-003**	**0.1848**	**0.0399**	**5.8000e-004**	**0.0139**	**5.3000e-004**	**0.0144**	**3.8000e-003**	**5.0000e-004**	**4.3100e-003**	**0.0000**	**56.1975**	**56.1975**	**2.7100e-003**	**0.0000**	**56.2654**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0704	0.7451	0.7381	1.3300e-003		0.0345	0.0345		0.0322	0.0322	0.0000	116.0527	116.0527	0.0319	0.0000	116.8506
Total	**0.0704**	**0.7451**	**0.7381**	**1.3300e-003**		**0.0345**	**0.0345**		**0.0322**	**0.0322**	**0.0000**	**116.0527**	**116.0527**	**0.0319**	**0.0000**	**116.8506**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2700e-003	0.2720	0.0534	8.5000e-004	0.0568	7.7000e-004	0.0576	0.0145	7.4000e-004	0.0152	0.0000	81.6938	81.6938	3.9800e-003	0.0000	81.7934
Vendor	1.2700e-003	0.0445	9.3000e-003	1.2000e-004	2.8800e-003	8.0000e-005	2.9600e-003	8.3000e-004	8.0000e-005	9.1000e-004	0.0000	11.3621	11.3621	6.0000e-004	0.0000	11.3772
Worker	7.5800e-003	5.2100e-003	0.0558	1.8000e-004	0.0202	1.3000e-004	0.0203	5.3700e-003	1.2000e-004	5.5000e-003	0.0000	16.7032	16.7032	3.7000e-004	0.0000	16.7125
Total	**0.0171**	**0.3217**	**0.1185**	**1.1500e-003**	**0.0799**	**9.8000e-004**	**0.0808**	**0.0207**	**9.4000e-004**	**0.0216**	**0.0000**	**109.7591**	**109.7591**	**4.9500e-003**	**0.0000**	**109.8830**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0226	0.3493	0.8420	1.3300e-003		2.1000e-003	2.1000e-003		2.1000e-003	2.1000e-003	0.0000	116.0526	116.0526	0.0319	0.0000	116.8505
Total	**0.0226**	**0.3493**	**0.8420**	**1.3300e-003**		**2.1000e-003**	**2.1000e-003**		**2.1000e-003**	**2.1000e-003**	**0.0000**	**116.0526**	**116.0526**	**0.0319**	**0.0000**	**116.8505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2700e-003	0.2720	0.0534	8.5000e-004	0.0568	7.7000e-004	0.0576	0.0145	7.4000e-004	0.0152	0.0000	81.6938	81.6938	3.9800e-003	0.0000	81.7934
Vendor	1.2700e-003	0.0445	9.3000e-003	1.2000e-004	2.8800e-003	8.0000e-005	2.9600e-003	8.3000e-004	8.0000e-005	9.1000e-004	0.0000	11.3621	11.3621	6.0000e-004	0.0000	11.3772
Worker	7.5800e-003	5.2100e-003	0.0558	1.8000e-004	0.0202	1.3000e-004	0.0203	5.3700e-003	1.2000e-004	5.5000e-003	0.0000	16.7032	16.7032	3.7000e-004	0.0000	16.7125
Total	**0.0171**	**0.3217**	**0.1185**	**1.1500e-003**	**0.0799**	**9.8000e-004**	**0.0808**	**0.0207**	**9.4000e-004**	**0.0216**	**0.0000**	**109.7591**	**109.7591**	**4.9500e-003**	**0.0000**	**109.8830**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1175	1.2294	1.3047	2.3600e-003		0.0549	0.0549		0.0512	0.0512	0.0000	206.6680	206.6680	0.0566	0.0000	208.0840

Total	**0.1175**	**1.2294**	**1.3047**	**2.3600e-003**		**0.0549**	**0.0549**		**0.0512**	**0.0512**	**0.0000**	**206.6680**	**206.6680**	**0.0566**	**0.0000**	**208.0840**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.8800e-003	0.3246	0.0835	1.4500e-003	0.0605	5.6000e-004	0.0610	0.0158	5.3000e-004	0.0164	0.0000	139.8918	139.8918	5.9600e-003	0.0000	140.0409
Vendor	1.6500e-003	0.0613	0.0145	2.1000e-004	5.1200e-003	6.0000e-005	5.1900e-003	1.4800e-003	6.0000e-005	1.5400e-003	0.0000	19.6583	19.6583	8.6000e-004	0.0000	19.6797
Worker	0.0126	8.3200e-003	0.0909	3.2000e-004	0.0360	2.3000e-004	0.0362	9.5700e-003	2.1000e-004	9.7800e-003	0.0000	28.6078	28.6078	5.9000e-004	0.0000	28.6226
Total	**0.0241**	**0.3943**	**0.1889**	**1.9800e-003**	**0.1016**	**8.5000e-004**	**0.1024**	**0.0269**	**8.0000e-004**	**0.0277**	**0.0000**	**188.1579**	**188.1579**	**7.4100e-003**	**0.0000**	**188.3432**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0402	0.6221	1.4994	2.3600e-003		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	206.6677	206.6677	0.0566	0.0000	208.0837
Total	**0.0402**	**0.6221**	**1.4994**	**2.3600e-003**		**3.7400e-003**	**3.7400e-003**		**3.7400e-003**	**3.7400e-003**	**0.0000**	**206.6677**	**206.6677**	**0.0566**	**0.0000**	**208.0837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.8800e-003	0.3246	0.0835	1.4500e-003	0.0605	5.6000e-004	0.0610	0.0158	5.3000e-004	0.0164	0.0000	139.8918	139.8918	5.9600e-003	0.0000	140.0409
Vendor	1.6500e-003	0.0613	0.0145	2.1000e-004	5.1200e-003	6.0000e-005	5.1900e-003	1.4800e-003	6.0000e-005	1.5400e-003	0.0000	19.6583	19.6583	8.6000e-004	0.0000	19.6797
Worker	0.0126	8.3200e-003	0.0909	3.2000e-004	0.0360	2.3000e-004	0.0362	9.5700e-003	2.1000e-004	9.7800e-003	0.0000	28.6078	28.6078	5.9000e-004	0.0000	28.6226
Total	**0.0241**	**0.3943**	**0.1889**	**1.9800e-003**	**0.1016**	**8.5000e-004**	**0.1024**	**0.0269**	**8.0000e-004**	**0.0277**	**0.0000**	**188.1579**	**188.1579**	**7.4100e-003**	**0.0000**	**188.3432**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0611	0.6338	0.7128	1.3000e-003		0.0272	0.0272		0.0254	0.0254	0.0000	113.6666	113.6666	0.0311	0.0000	114.4445
Total	**0.0611**	**0.6338**	**0.7128**	**1.3000e-003**		**0.0272**	**0.0272**		**0.0254**	**0.0254**	**0.0000**	**113.6666**	**113.6666**	**0.0311**	**0.0000**	**114.4445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	5.3900e-003	0.1755	0.0458	7.9000e-004	0.0567	3.0000e-004	0.0570	0.0145	2.9000e-004	0.0148	0.0000	76.3828	76.3828	3.2800e-003	0.0000	76.4647
Vendor	8.8000e-004	0.0335	7.6200e-003	1.1000e-004	2.8200e-003	4.0000e-005	2.8500e-003	8.2000e-004	3.0000e-005	8.5000e-004	0.0000	10.7372	10.7372	4.7000e-004	0.0000	10.7488
Worker	6.4600e-003	4.1200e-003	0.0462	1.7000e-004	0.0198	1.2000e-004	0.0199	5.2600e-003	1.1000e-004	5.3800e-003	0.0000	15.1107	15.1107	2.9000e-004	0.0000	15.1180
Total	**0.0127**	**0.2131**	**0.0996**	**1.0700e-003**	**0.0793**	**4.6000e-004**	**0.0798**	**0.0205**	**4.3000e-004**	**0.0210**	**0.0000**	**102.2306**	**102.2306**	**4.0400e-003**	**0.0000**	**102.3314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.3422	0.8247	1.3000e-003		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	113.6665	113.6665	0.0311	0.0000	114.4444
Total	**0.0221**	**0.3422**	**0.8247**	**1.3000e-003**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**	**0.0000**	**113.6665**	**113.6665**	**0.0311**	**0.0000**	**114.4444**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.3900e-003	0.1755	0.0458	7.9000e-004	0.0567	3.0000e-004	0.0570	0.0145	2.9000e-004	0.0148	0.0000	76.3828	76.3828	3.2800e-003	0.0000	76.4647
Vendor	8.8000e-004	0.0335	7.6200e-003	1.1000e-004	2.8200e-003	4.0000e-005	2.8500e-003	8.2000e-004	3.0000e-005	8.5000e-004	0.0000	10.7372	10.7372	4.7000e-004	0.0000	10.7488

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Worker	6.4600e-003	4.1200e-003	0.0462	1.7000e-004	0.0198	1.2000e-004	0.0199	5.2600e-003	1.1000e-004	5.3800e-003	0.0000	15.1107	15.1107	2.9000e-004	0.0000	15.1180
Total	**0.0127**	**0.2131**	**0.0996**	**1.0700e-003**	**0.0793**	**4.6000e-004**	**0.0798**	**0.0205**	**4.3000e-004**	**0.0210**	**0.0000**	**102.2306**	**102.2306**	**4.0400e-003**	**0.0000**	**102.3314**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	0.0152	0.0231	3.0000e-005		6.4000e-004	6.4000e-004		5.9000e-004	5.9000e-004	0.0000	2.9247	2.9247	9.5000e-004	0.0000	2.9484
Total	**2.0099**	**0.0152**	**0.0231**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**2.9247**	**2.9247**	**9.5000e-004**	**0.0000**	**2.9484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	8.5900e-003	1.9500e-003	3.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	2.7531	2.7531	1.2000e-004	0.0000	2.7561
Worker	1.2800e-003	8.2000e-004	9.1300e-003	3.0000e-005	3.9100e-003	2.0000e-005	3.9400e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	2.9889	2.9889	6.0000e-005	0.0000	2.9904
Total	**1.5100e-003**	**9.4100e-003**	**0.0111**	**6.0000e-005**	**4.6300e-003**	**3.0000e-005**	**4.6700e-003**	**1.2500e-003**	**3.0000e-005**	**1.2800e-003**	**0.0000**	**5.7420**	**5.7420**	**1.8000e-004**	**0.0000**	**5.7465**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0086					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9000e-004	0.0134	0.0253	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.9247	2.9247	9.5000e-004	0.0000	2.9484
Total	**2.0093**	**0.0134**	**0.0253**	**3.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**2.9247**	**2.9247**	**9.5000e-004**	**0.0000**	**2.9484**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	8.5900e-003	1.9500e-003	3.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	2.7531	2.7531	1.2000e-004	0.0000	2.7561
Worker	1.2800e-003	8.2000e-004	9.1300e-003	3.0000e-005	3.9100e-003	2.0000e-005	3.9400e-003	1.0400e-003	2.0000e-005	1.0600e-003	0.0000	2.9889	2.9889	6.0000e-005	0.0000	2.9904
Total	**1.5100e-003**	**9.4100e-003**	**0.0111**	**6.0000e-005**	**4.6300e-003**	**3.0000e-005**	**4.6700e-003**	**1.2500e-003**	**3.0000e-005**	**1.2800e-003**	**0.0000**	**5.7420**	**5.7420**	**1.8000e-004**	**0.0000**	**5.7465**

3.7 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Off-Road	7.0200e-003	0.0547	0.0840	1.4000e-004		2.5600e-003	2.5600e-003		2.5000e-003	2.5000e-003	0.0000	12.0671	12.0671	1.7000e-003	0.0000	12.1094
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.0200e-003**	**0.0547**	**0.0840**	**1.4000e-004**		**2.5600e-003**	**2.5600e-003**		**2.5000e-003**	**2.5000e-003**	**0.0000**	**12.0671**	**12.0671**	**1.7000e-003**	**0.0000**	**12.1094**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-004	0.0196	5.1300e-003	9.0000e-005	2.0300e-003	3.0000e-005	2.0700e-003	5.6000e-004	3.0000e-005	5.9000e-004	0.0000	8.5463	8.5463	3.7000e-004	0.0000	8.5555
Vendor	7.0000e-005	2.5800e-003	5.9000e-004	1.0000e-005	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.8259	0.8259	4.0000e-005	0.0000	0.8268
Worker	3.4000e-004	2.2000e-004	2.4300e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.7971	0.7971	2.0000e-005	0.0000	0.7974
Total	**1.0100e-003**	**0.0224**	**8.1500e-003**	**1.1000e-004**	**3.2900e-003**	**4.0000e-005**	**3.3400e-003**	**9.0000e-004**	**4.0000e-005**	**9.4000e-004**	**0.0000**	**10.1693**	**10.1693**	**4.3000e-004**	**0.0000**	**10.1797**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4600e-003	6.3200e-003	0.0900	1.4000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	12.0671	12.0671	1.7000e-003	0.0000	12.1094
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	1.4600e-003	6.3200e-003	0.0900	1.4000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	12.0671	12.0671	1.7000e-003	0.0000	12.1094

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-004	0.0196	5.1300e-003	9.0000e-005	2.0300e-003	3.0000e-005	2.0700e-003	5.6000e-004	3.0000e-005	5.9000e-004	0.0000	8.5463	8.5463	3.7000e-004	0.0000	8.5555
Vendor	7.0000e-005	2.5800e-003	5.9000e-004	1.0000e-005	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.8259	0.8259	4.0000e-005	0.0000	0.8268
Worker	3.4000e-004	2.2000e-004	2.4300e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.7971	0.7971	2.0000e-005	0.0000	0.7974
Total	**1.0100e-003**	**0.0224**	**8.1500e-003**	**1.1000e-004**	**3.2900e-003**	**4.0000e-005**	**3.3400e-003**	**9.0000e-004**	**4.0000e-005**	**9.4000e-004**	**0.0000**	**10.1693**	**10.1693**	**4.3000e-004**	**0.0000**	**10.1797**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.563555	0.037576	0.190339	0.105468	0.014285	0.005132	0.025195	0.047484	0.002230	0.002277	0.005427	0.000351	0.000679
Enclosed Parking with Elevator	0.563555	0.037576	0.190339	0.105468	0.014285	0.005132	0.025195	0.047484	0.002230	0.002277	0.005427	0.000351	0.000679
General Office Building	0.563555	0.037576	0.190339	0.105468	0.014285	0.005132	0.025195	0.047484	0.002230	0.002277	0.005427	0.000351	0.000679
Strip Mall	0.563555	0.037576	0.190339	0.105468	0.014285	0.005132	0.025195	0.047484	0.002230	0.002277	0.005427	0.000351	0.000679

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Lake Merritt BART Station Redevelopment Project Construction Phase 2

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	525.61	1000sqft	1.38	525,610.00	0
Enclosed Parking with Elevator	80.60	1000sqft	0.00	80,600.00	0
Apartments High Rise	100.00	Dwelling Unit	0.00	101,750.00	286
Strip Mall	10.00	1000sqft	0.00	10,000.00	0
Day-Care Center	6.20	1000sqft	0.00	6,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised PG&e factoir to match latest available http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

Land Use - Adjust Acreage and square footage to match PD.

Construction Phase - Adjust construction schedule to match RFI response from applicant.

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Equipment list provided by applicant

Trips and VMT - Vehicle trips provided by applicant

Demolition -

Grading - CalEEMod populated graded acres. Default is zero.

Architectural Coating -

Vehicle Trips - Construction run only. No opertaional emissions.

Woodstoves - Construction run only. No opertaional emissions.

Consumer Products - Construction run only. No opertaional emissions.

Area Coating - Construction run only. No opertaional emissions.

Landscape Equipment - Construction run only. No opertaional emissions.

Energy Use - Construction run only. No opertaional emissions.

Water And Wastewater - Construction run only. No opertaional emissions.

Solid Waste - Construction run only. No opertaional emissions.

Construction Off-road Equipment Mitigation - Tier 4 equipment to be required per City of Oakland SCA

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	4.00	125.00
tblConstructionPhase	NumDays	200.00	476.00
tblConstructionPhase	NumDays	10.00	195.00
tblConstructionPhase	NumDays	10.00	32.00
tblConstructionPhase	PhaseEndDate	1/30/2026	4/13/2026
tblConstructionPhase	PhaseEndDate	2/3/2026	5/4/2026
tblConstructionPhase	PhaseEndDate	2/9/2026	6/25/2027
tblConstructionPhase	PhaseEndDate	11/16/2026	3/6/2028
tblConstructionPhase	PhaseEndDate	12/14/2026	12/30/2028
tblConstructionPhase	PhaseEndDate	11/30/2026	2/13/2029
tblConstructionPhase	PhaseStartDate	1/31/2026	4/13/2026
tblConstructionPhase	PhaseStartDate	2/4/2026	1/4/2027

tblConstructionPhase	PhaseStartDate	2/10/2026	5/11/2026
tblConstructionPhase	PhaseStartDate	12/1/2026	4/3/2028
tblConstructionPhase	PhaseStartDate	11/17/2026	12/30/2028
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.58	0.00
tblEnergyUse	LightingElect	4.88	0.00
tblEnergyUse	LightingElect	2.51	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	4.80	0.00
tblEnergyUse	NT24E	3.36	0.00
tblEnergyUse	NT24E	1.27	0.00
tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	NT24NG	1.01	0.00
tblEnergyUse	NT24NG	0.70	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	T24E	426.45	0.00
tblEnergyUse	T24E	3.92	0.00
tblEnergyUse	T24E	4.10	0.00
tblEnergyUse	T24E	2.24	0.00
tblEnergyUse	T24E	0.66	0.00
tblEnergyUse	T24NG	6,115.43	0.00
tblEnergyUse	T24NG	18.32	0.00
tblEnergyUse	T24NG	3.90	0.00
tblEnergyUse	T24NG	14.85	0.00
tblFireplaces	NumberGas	15.00	0.00
tblFireplaces	NumberWood	17.00	0.00
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	AcresOfGrading	8.00	1.00

tblGrading	MaterialExported	0.00	30,000.00
tblGrading	MaterialImported	0.00	1,300.00
tblLandUse	LandUseSquareFeet	100,000.00	101,750.00
tblLandUse	LotAcreage	12.07	1.38
tblLandUse	LotAcreage	1.85	0.00
tblLandUse	LotAcreage	1.61	0.00
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	0.14	0.00
tblOffRoadEquipment	HorsePower	65.00	263.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
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tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers

tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Sweepers/Scrubbers
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210

tblSolidWaste	SolidWasteGenerationRate	46.00	0.00
tblSolidWaste	SolidWasteGenerationRate	8.06	0.00
tblSolidWaste	SolidWasteGenerationRate	488.82	0.00
tblSolidWaste	SolidWasteGenerationRate	10.50	0.00
tblTripsAndVMT	HaulingTripNumber	265.00	1,065.00
tblTripsAndVMT	HaulingTripNumber	0.00	160.00
tblTripsAndVMT	HaulingTripNumber	3,912.00	4,375.00
tblTripsAndVMT	HaulingTripNumber	0.00	7,140.00
tblTripsAndVMT	HaulingTripNumber	0.00	320.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	113.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	15.00	8.00
tblTripsAndVMT	WorkerTripNumber	280.00	35.00
tblTripsAndVMT	WorkerTripNumber	56.00	45.00
tblTripsAndVMT	WorkerTripNumber	10.00	12.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	3.65	0.00
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tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	74.06	0.00

tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	IndoorWaterUseRate	6,515,402.56	0.00
tblWater	IndoorWaterUseRate	265,915.32	0.00
tblWater	IndoorWaterUseRate	93,418,635.28	0.00
tblWater	IndoorWaterUseRate	740,725.21	0.00
tblWater	OutdoorWaterUseRate	4,107,536.40	0.00
tblWater	OutdoorWaterUseRate	683,782.25	0.00
tblWater	OutdoorWaterUseRate	57,256,582.92	0.00
tblWater	OutdoorWaterUseRate	453,992.87	0.00
tblWoodstoves	NumberCatalytic	2.00	0.00
tblWoodstoves	NumberNoncatalytic	2.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.1289	1.4040	1.5985	4.2900e-003	0.1202	0.0461	0.1663	0.0284	0.0432	0.0716	0.0000	389.2461	389.2461	0.0629	0.0000	390.8176
2027	0.2210	2.5177	2.8757	7.9600e-003	0.1396	0.0802	0.2198	0.0372	0.0749	0.1121	0.0000	726.8492	726.8492	0.1180	0.0000	729.7992
2028	3.6017	0.4285	0.4694	1.4500e-003	0.0970	0.0130	0.1101	0.0252	0.0122	0.0373	0.0000	132.5739	132.5739	0.0165	0.0000	132.9858
2029	0.0108	0.1006	0.1317	3.4000e-004	4.5400e-003	3.2400e-003	7.7900e-003	1.2400e-003	3.1600e-003	4.4000e-003	0.0000	30.7483	30.7483	2.9700e-003	0.0000	30.8226
Maximum	**3.6017**	**2.5177**	**2.8757**	**7.9600e-003**	**0.1396**	**0.0802**	**0.2198**	**0.0372**	**0.0749**	**0.1121**	**0.0000**	**726.8492**	**726.8492**	**0.1180**	**0.0000**	**729.7992**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0561	0.8107	1.8215	4.2900e-003	0.1202	4.7200e-003	0.1250	0.0284	4.6800e-003	0.0331	0.0000	389.2458	389.2458	0.0629	0.0000	390.8173
2027	0.1010	1.5940	3.2595	7.9600e-003	0.1396	8.4000e-003	0.1480	0.0372	8.3300e-003	0.0455	0.0000	726.8488	726.8488	0.1180	0.0000	729.7987
2028	3.5821	0.2625	0.5131	1.4500e-003	0.0970	1.3700e-003	0.0984	0.0252	1.3400e-003	0.0265	0.0000	132.5739	132.5739	0.0165	0.0000	132.9858
2029	3.3400e-003	0.0370	0.1408	3.4000e-004	4.5400e-003	3.4000e-004	4.8800e-003	1.2400e-003	3.3000e-004	1.5700e-003	0.0000	30.7483	30.7483	2.9700e-003	0.0000	30.8226
Maximum	**3.5821**	**1.5940**	**3.2595**	**7.9600e-003**	**0.1396**	**8.4000e-003**	**0.1480**	**0.0372**	**8.3300e-003**	**0.0455**	**0.0000**	**726.8488**	**726.8488**	**0.1180**	**0.0000**	**729.7987**

1284.4

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.55**	**39.24**	**-13.00**	**0.00**	**0.00**	**89.59**	**25.34**	**0.00**	**89.00**	**52.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-5-2026**	**4-4-2026**	0.2156	0.1119
2	**4-5-2026**	**7-4-2026**	0.3861	0.2092
3	**7-5-2026**	**10-4-2026**	0.4688	0.2742
4	**10-5-2026**	**1-4-2027**	0.4755	0.2793
5	**1-5-2027**	**4-4-2027**	0.9106	0.5810
6	**4-5-2027**	**7-4-2027**	0.8714	0.5521
7	**7-5-2027**	**10-4-2027**	0.4671	0.2725
8	**10-5-2027**	**1-4-2028**	0.4687	0.2740
9	**1-5-2028**	**4-4-2028**	0.3420	0.2105
10	**4-5-2028**	**7-4-2028**	1.2343	1.2178
11	**7-5-2028**	**10-4-2028**	1.2478	1.2312

12	**10-5-2028**	**1-4-2029**	1.1956	1.1704
13	**1-5-2029**	**4-4-2029**	0.0995	0.0361
		Highest	1.2478	1.2312

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2026	4/13/2026	5	71	
2	Site Preparation	Site Preparation	4/13/2026	5/4/2026	5	16	
3	Building Construction	Building Construction	5/11/2026	3/6/2028	5	476	
4	Grading	Grading	1/4/2027	6/25/2027	5	125	
5	Architectural Coating	Architectural Coating	4/3/2028	12/30/2028	5	195	
6	Paving	Paving	12/30/2028	2/13/2029	5	32	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 206,044; Residential Outdoor: 68,681; Non-Residential Indoor: 812,715; Non-Residential Outdoor: 270,905; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	4.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38

Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Crawler Tractors	1	8.00	212	0.43
Site Preparation	Rollers	1	8.00	80	0.38
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Sweepers/Scrubbers	1	8.00	64	0.46
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Aerial Lifts	3	8.00	63	0.31
Grading	Graders	0	6.00	187	0.41
Building Construction	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Excavators	3	8.00	158	0.38
Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Rollers	1	8.00	80	0.38
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Forklifts	1	5.00	89	0.20
Architectural Coating	Skid Steer Loaders	1	8.00	263	0.30
Paving	Air Compressors	1	4.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Concrete/Industrial Saws	1	8.00	81	0.73

Paving	Pavers	0	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	2.00	1,065.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	8.00	3.00	160.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	8.00	3.00	4,375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	35.00	6.00	7,140.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	45.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	12.00	3.00	320.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0286	0.0000	0.0286	4.3300e-003	0.0000	4.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0172	0.1275	0.2973	4.8000e-004		5.9200e-003	5.9200e-003		5.5800e-003	5.5800e-003	0.0000	41.9314	41.9314	0.0109	0.0000	42.2037

Total	0.0172	0.1275	0.2973	4.8000e-004	0.0286	5.9200e-003	0.0346	4.3300e-003	5.5800e-003	9.9100e-003	0.0000	41.9314	41.9314	0.0109	0.0000	42.2037

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6300e-003	0.0841	0.0226	3.9000e-004	9.0200e-003	1.5000e-004	9.1700e-003	2.4800e-003	1.4000e-004	2.6200e-003	0.0000	37.4197	37.4197	1.6100e-003	0.0000	37.4600
Vendor	1.4000e-004	5.4600e-003	1.1800e-003	2.0000e-005	4.7000e-004	1.0000e-005	4.7000e-004	1.3000e-004	1.0000e-005	1.4000e-004	0.0000	1.7549	1.7549	7.0000e-005	0.0000	1.7568
Worker	6.5000e-004	3.9000e-004	4.5000e-003	2.0000e-005	2.2500e-003	1.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.5836	1.5836	3.0000e-005	0.0000	1.5843
Total	**3.4200e-003**	**0.0899**	**0.0283**	**4.3000e-004**	**0.0117**	**1.7000e-004**	**0.0119**	**3.2100e-003**	**1.6000e-004**	**3.3700e-003**	**0.0000**	**40.7583**	**40.7583**	**1.7100e-003**	**0.0000**	**40.8012**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0286	0.0000	0.0286	4.3300e-003	0.0000	4.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6400e-003	0.0245	0.3481	4.8000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	41.9313	41.9313	0.0109	0.0000	42.2037
Total	**5.6400e-003**	**0.0245**	**0.3481**	**4.8000e-004**	**0.0286**	**7.5000e-004**	**0.0294**	**4.3300e-003**	**7.5000e-004**	**5.0800e-003**	**0.0000**	**41.9313**	**41.9313**	**0.0109**	**0.0000**	**42.2037**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6300e-003	0.0841	0.0226	3.9000e-004	9.0200e-003	1.5000e-004	9.1700e-003	2.4800e-003	1.4000e-004	2.6200e-003	0.0000	37.4197	37.4197	1.6100e-003	0.0000	37.4600
Vendor	1.4000e-004	5.4600e-003	1.1800e-003	2.0000e-005	4.7000e-004	1.0000e-005	4.7000e-004	1.3000e-004	1.0000e-005	1.4000e-004	0.0000	1.7549	1.7549	7.0000e-005	0.0000	1.7568
Worker	6.5000e-004	3.9000e-004	4.5000e-003	2.0000e-005	2.2500e-003	1.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.5836	1.5836	3.0000e-005	0.0000	1.5843
Total	**3.4200e-003**	**0.0899**	**0.0283**	**4.3000e-004**	**0.0117**	**1.7000e-004**	**0.0119**	**3.2100e-003**	**1.6000e-004**	**3.3700e-003**	**0.0000**	**40.7583**	**40.7583**	**1.7100e-003**	**0.0000**	**40.8012**

3.3 Site Preparation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0644	0.0727	1.4000e-004		2.9400e-003	2.9400e-003		2.7100e-003	2.7100e-003	0.0000	12.7272	12.7272	4.1200e-003	0.0000	12.8301
Total	**6.6500e-003**	**0.0644**	**0.0727**	**1.4000e-004**	**5.3000e-004**	**2.9400e-003**	**3.4700e-003**	**6.0000e-005**	**2.7100e-003**	**2.7700e-003**	**0.0000**	**12.7272**	**12.7272**	**4.1200e-003**	**0.0000**	**12.8301**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	3.9000e-004	0.0126	3.3900e-003	6.0000e-005	1.3600e-003	2.0000e-005	1.3800e-003	3.7000e-004	2.0000e-005	3.9000e-004	0.0000	5.6217	5.6217	2.4000e-004	0.0000	5.6278
Vendor	5.0000e-005	1.8400e-003	4.0000e-004	1.0000e-005	1.6000e-004	0.0000	1.6000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.5932	0.5932	3.0000e-005	0.0000	0.5939
Worker	1.5000e-004	9.0000e-005	1.0100e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.3569	0.3569	1.0000e-005	0.0000	0.3570
Total	**5.9000e-004**	**0.0146**	**4.8000e-003**	**7.0000e-005**	**2.0300e-003**	**2.0000e-005**	**2.0500e-003**	**5.5000e-004**	**2.0000e-005**	**5.8000e-004**	**0.0000**	**6.5718**	**6.5718**	**2.8000e-004**	**0.0000**	**6.5787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0300e-003	0.0179	0.0906	1.4000e-004		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	12.7272	12.7272	4.1200e-003	0.0000	12.8301
Total	**2.0300e-003**	**0.0179**	**0.0906**	**1.4000e-004**	**5.3000e-004**	**2.4000e-004**	**7.7000e-004**	**6.0000e-005**	**2.4000e-004**	**3.0000e-004**	**0.0000**	**12.7272**	**12.7272**	**4.1200e-003**	**0.0000**	**12.8301**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9000e-004	0.0126	3.3900e-003	6.0000e-005	1.3600e-003	2.0000e-005	1.3800e-003	3.7000e-004	2.0000e-005	3.9000e-004	0.0000	5.6217	5.6217	2.4000e-004	0.0000	5.6278
Vendor	5.0000e-005	1.8400e-003	4.0000e-004	1.0000e-005	1.6000e-004	0.0000	1.6000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.5932	0.5932	3.0000e-005	0.0000	0.5939
Worker	1.5000e-004	9.0000e-005	1.0100e-003	0.0000	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.3569	0.3569	1.0000e-005	0.0000	0.3570

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Total	**5.9000e-004**	**0.0146**	**4.8000e-003**	**7.0000e-005**	**2.0300e-003**	**2.0000e-005**	**2.0500e-003**	**5.5000e-004**	**2.0000e-005**	**5.8000e-004**	**0.0000**	**6.5718**	**6.5718**	**2.8000e-004**	**0.0000**	**6.5787**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0871	0.8646	1.0865	1.9400e-003		0.0365	0.0365		0.0343	0.0343	0.0000	169.1647	169.1647	0.0412	0.0000	170.1946
Total	**0.0871**	**0.8646**	**1.0865**	**1.9400e-003**		**0.0365**	**0.0365**		**0.0343**	**0.0343**	**0.0000**	**169.1647**	**169.1647**	**0.0412**	**0.0000**	**170.1946**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2500e-003	0.2001	0.0537	9.2000e-004	0.0506	3.5000e-004	0.0510	0.0131	3.3000e-004	0.0134	0.0000	89.0694	89.0694	3.8400e-003	0.0000	89.1654
Vendor	9.9000e-004	0.0390	8.4300e-003	1.3000e-004	3.3300e-003	4.0000e-005	3.3700e-003	9.6000e-004	4.0000e-005	1.0000e-003	0.0000	12.5318	12.5318	5.3000e-004	0.0000	12.5452
Worker	6.8000e-003	4.0400e-003	0.0469	1.8000e-004	0.0234	1.4000e-004	0.0235	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	16.4916	16.4916	2.8000e-004	0.0000	16.4987
Total	**0.0140**	**0.2431**	**0.1091**	**1.2300e-003**	**0.0773**	**5.3000e-004**	**0.0778**	**0.0202**	**5.0000e-004**	**0.0207**	**0.0000**	**118.0927**	**118.0927**	**4.6500e-003**	**0.0000**	**118.2093**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0304	0.4208	1.2407	1.9400e-003		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	169.1645	169.1645	0.0412	0.0000	170.1944
Total	**0.0304**	**0.4208**	**1.2407**	**1.9400e-003**		**3.0100e-003**	**3.0100e-003**		**3.0100e-003**	**3.0100e-003**	**0.0000**	**169.1645**	**169.1645**	**0.0412**	**0.0000**	**170.1944**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2500e-003	0.2001	0.0537	9.2000e-004	0.0506	3.5000e-004	0.0510	0.0131	3.3000e-004	0.0134	0.0000	89.0694	89.0694	3.8400e-003	0.0000	89.1654
Vendor	9.9000e-004	0.0390	8.4300e-003	1.3000e-004	3.3300e-003	4.0000e-005	3.3700e-003	9.6000e-004	4.0000e-005	1.0000e-003	0.0000	12.5318	12.5318	5.3000e-004	0.0000	12.5452
Worker	6.8000e-003	4.0400e-003	0.0469	1.8000e-004	0.0234	1.4000e-004	0.0235	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	16.4916	16.4916	2.8000e-004	0.0000	16.4987
Total	**0.0140**	**0.2431**	**0.1091**	**1.2300e-003**	**0.0773**	**5.3000e-004**	**0.0778**	**0.0202**	**5.0000e-004**	**0.0207**	**0.0000**	**118.0927**	**118.0927**	**4.6500e-003**	**0.0000**	**118.2093**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.1344	1.3353	1.6779	2.9900e-003		0.0564	0.0564		0.0529	0.0529	0.0000	261.2543	261.2543	0.0636	0.0000	262.8450
Total	**0.1344**	**1.3353**	**1.6779**	**2.9900e-003**		**0.0564**	**0.0564**		**0.0529**	**0.0529**	**0.0000**	**261.2543**	**261.2543**	**0.0636**	**0.0000**	**262.8450**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.5700e-003	0.3037	0.0828	1.4100e-003	0.0536	5.3000e-004	0.0541	0.0141	5.1000e-004	0.0146	0.0000	136.7416	136.7416	5.9100e-003	0.0000	136.8894
Vendor	1.5000e-003	0.0597	0.0127	2.0000e-004	5.1400e-003	6.0000e-005	5.2000e-003	1.4900e-003	6.0000e-005	1.5500e-003	0.0000	19.2495	19.2495	8.2000e-004	0.0000	19.2699
Worker	9.9400e-003	5.7100e-003	0.0676	2.7000e-004	0.0361	2.0000e-004	0.0363	9.6100e-003	1.9000e-004	9.8000e-003	0.0000	24.5940	24.5940	4.0000e-004	0.0000	24.6040
Total	**0.0210**	**0.3690**	**0.1631**	**1.8800e-003**	**0.0948**	**7.9000e-004**	**0.0956**	**0.0252**	**7.6000e-004**	**0.0260**	**0.0000**	**180.5850**	**180.5850**	**7.1300e-003**	**0.0000**	**180.7633**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0469	0.6498	1.9161	2.9900e-003		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	261.2540	261.2540	0.0636	0.0000	262.8446
Total	**0.0469**	**0.6498**	**1.9161**	**2.9900e-003**		**4.6400e-003**	**4.6400e-003**		**4.6400e-003**	**4.6400e-003**	**0.0000**	**261.2540**	**261.2540**	**0.0636**	**0.0000**	**262.8446**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.5700e-003	0.3037	0.0828	1.4100e-003	0.0536	5.3000e-004	0.0541	0.0141	5.1000e-004	0.0146	0.0000	136.7416	136.7416	5.9100e-003	0.0000	136.8894
Vendor	1.5000e-003	0.0597	0.0127	2.0000e-004	5.1400e-003	6.0000e-005	5.2000e-003	1.4900e-003	6.0000e-005	1.5500e-003	0.0000	19.2495	19.2495	8.2000e-004	0.0000	19.2699
Worker	9.9400e-003	5.7100e-003	0.0676	2.7000e-004	0.0361	2.0000e-004	0.0363	9.6100e-003	1.9000e-004	9.8000e-003	0.0000	24.5940	24.5940	4.0000e-004	0.0000	24.6040
Total	**0.0210**	**0.3690**	**0.1631**	**1.8800e-003**	**0.0948**	**7.9000e-004**	**0.0956**	**0.0252**	**7.6000e-004**	**0.0260**	**0.0000**	**180.5850**	**180.5850**	**7.1300e-003**	**0.0000**	**180.7633**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0237	0.2353	0.2957	5.3000e-004		9.9300e-003	9.9300e-003		9.3200e-003	9.3200e-003	0.0000	46.0448	46.0448	0.0112	0.0000	46.3252
Total	**0.0237**	**0.2353**	**0.2957**	**5.3000e-004**		**9.9300e-003**	**9.9300e-003**		**9.3200e-003**	**9.3200e-003**	**0.0000**	**46.0448**	**46.0448**	**0.0112**	**0.0000**	**46.3252**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0528	0.0146	2.5000e-004	0.0466	9.0000e-005	0.0467	0.0116	9.0000e-005	0.0117	0.0000	23.9825	23.9825	1.0400e-003	0.0000	24.0084
Vendor	2.6000e-004	0.0105	2.1900e-003	4.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	3.3777	3.3777	1.4000e-004	0.0000	3.3813
Worker	1.6500e-003	9.2000e-004	0.0112	5.0000e-005	6.3600e-003	3.0000e-005	6.4000e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.1983	4.1983	6.0000e-005	0.0000	4.1999
Total	**3.5800e-003**	**0.0642**	**0.0279**	**3.4000e-004**	**0.0539**	**1.3000e-004**	**0.0541**	**0.0136**	**1.3000e-004**	**0.0137**	**0.0000**	**31.5585**	**31.5585**	**1.2400e-003**	**0.0000**	**31.5896**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.1145	0.3377	5.3000e-004		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	46.0448	46.0448	0.0112	0.0000	46.3251
Total	**8.2600e-003**	**0.1145**	**0.3377**	**5.3000e-004**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**46.0448**	**46.0448**	**0.0112**	**0.0000**	**46.3251**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	1.6700e-003	0.0528	0.0146	2.5000e-004	0.0466	9.0000e-005	0.0467	0.0116	9.0000e-005	0.0117	0.0000	23.9825	23.9825	1.0400e-003	0.0000	24.0084

Vendor	2.6000e-004	0.0105	2.1900e-003	4.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	3.3777	3.3777	1.4000e-004	0.0000	3.3813
Worker	1.6500e-003	9.2000e-004	0.0112	5.0000e-005	6.3600e-003	3.0000e-005	6.4000e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.1983	4.1983	6.0000e-005	0.0000	4.1999
Total	**3.5800e-003**	**0.0642**	**0.0279**	**3.4000e-004**	**0.0539**	**1.3000e-004**	**0.0541**	**0.0136**	**1.3000e-004**	**0.0137**	**0.0000**	**31.5585**	**31.5585**	**1.2400e-003**	**0.0000**	**31.5896**

3.5 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5700e-003	0.0000	2.5700e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0534	0.4591	0.9318	1.4200e-003		0.0224	0.0224		0.0206	0.0206	0.0000	124.8998	124.8998	0.0404	0.0000	125.9097
Total	**0.0534**	**0.4591**	**0.9318**	**1.4200e-003**	**2.5700e-003**	**0.0224**	**0.0250**	**3.5000e-004**	**0.0206**	**0.0210**	**0.0000**	**124.8998**	**124.8998**	**0.0404**	**0.0000**	**125.9097**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.3393	0.0925	1.5800e-003	0.0371	5.9000e-004	0.0377	0.0102	5.7000e-004	0.0108	0.0000	152.8083	152.8083	6.6100e-003	0.0000	152.9734
Vendor	3.6000e-004	0.0143	3.0400e-003	5.0000e-005	1.2300e-003	1.0000e-005	1.2500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	4.6096	4.6096	2.0000e-004	0.0000	4.6145
Worker	1.0900e-003	6.3000e-004	7.4000e-003	3.0000e-005	3.9500e-003	2.0000e-005	3.9800e-003	1.0500e-003	2.0000e-005	1.0700e-003	0.0000	2.6923	2.6923	4.0000e-005	0.0000	2.6934
Total	**0.0122**	**0.3543**	**0.1029**	**1.6600e-003**	**0.0422**	**6.2000e-004**	**0.0429**	**0.0116**	**6.0000e-004**	**0.0122**	**0.0000**	**160.1101**	**160.1101**	**6.8500e-003**	**0.0000**	**160.2813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5700e-003	0.0000	2.5700e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0210	0.2209	1.0773	1.4200e-003		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	124.8997	124.8997	0.0404	0.0000	125.9095
Total	**0.0210**	**0.2209**	**1.0773**	**1.4200e-003**	**2.5700e-003**	**2.3300e-003**	**4.9000e-003**	**3.5000e-004**	**2.3300e-003**	**2.6800e-003**	**0.0000**	**124.8997**	**124.8997**	**0.0404**	**0.0000**	**125.9095**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.3393	0.0925	1.5800e-003	0.0371	5.9000e-004	0.0377	0.0102	5.7000e-004	0.0108	0.0000	152.8083	152.8083	6.6100e-003	0.0000	152.9734
Vendor	3.6000e-004	0.0143	3.0400e-003	5.0000e-005	1.2300e-003	1.0000e-005	1.2500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	4.6096	4.6096	2.0000e-004	0.0000	4.6145
Worker	1.0900e-003	6.3000e-004	7.4000e-003	3.0000e-005	3.9500e-003	2.0000e-005	3.9800e-003	1.0500e-003	2.0000e-005	1.0700e-003	0.0000	2.6923	2.6923	4.0000e-005	0.0000	2.6934
Total	**0.0122**	**0.3543**	**0.1029**	**1.6600e-003**	**0.0422**	**6.2000e-004**	**0.0429**	**0.0116**	**6.0000e-004**	**0.0122**	**0.0000**	**160.1101**	**160.1101**	**6.8500e-003**	**0.0000**	**160.2813**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.5583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0501	0.0694	9.0000e-005		2.6800e-003	2.6800e-003		2.4700e-003	2.4700e-003	0.0000	8.2243	8.2243	2.6600e-003	0.0000	8.2908
Total	**3.5636**	**0.0501**	**0.0694**	**9.0000e-005**		**2.6800e-003**	**2.6800e-003**		**2.4700e-003**	**2.4700e-003**	**0.0000**	**8.2243**	**8.2243**	**2.6600e-003**	**0.0000**	**8.2908**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8400e-003	0.0738	0.0155	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8500e-003	7.0000e-005	1.9300e-003	0.0000	23.8644	23.8644	1.0100e-003	0.0000	23.8896
Worker	8.9800e-003	5.0400e-003	0.0609	2.5000e-004	0.0347	1.8000e-004	0.0349	9.2300e-003	1.7000e-004	9.4000e-003	0.0000	22.8819	22.8819	3.5000e-004	0.0000	22.8907
Total	**0.0108**	**0.0789**	**0.0763**	**5.0000e-004**	**0.0411**	**2.6000e-004**	**0.0414**	**0.0111**	**2.4000e-004**	**0.0113**	**0.0000**	**46.7463**	**46.7463**	**1.3600e-003**	**0.0000**	**46.7803**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.5583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	1.1500e-003	5.0000e-003	0.0711	9.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	8.2243	8.2243	2.6600e-003	0.0000	8.2908
Total	**3.5594**	**5.0000e-003**	**0.0711**	**9.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**8.2243**	**8.2243**	**2.6600e-003**	**0.0000**	**8.2908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8400e-003	0.0738	0.0155	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8500e-003	7.0000e-005	1.9300e-003	0.0000	23.8644	23.8644	1.0100e-003	0.0000	23.8896
Worker	8.9800e-003	5.0400e-003	0.0609	2.5000e-004	0.0347	1.8000e-004	0.0349	9.2300e-003	1.7000e-004	9.4000e-003	0.0000	22.8819	22.8819	3.5000e-004	0.0000	22.8907
Total	**0.0108**	**0.0789**	**0.0763**	**5.0000e-004**	**0.0411**	**2.6000e-004**	**0.0414**	**0.0111**	**2.4000e-004**	**0.0113**	**0.0000**	**46.7463**	**46.7463**	**1.3600e-003**	**0.0000**	**46.7803**

3.7 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	2.0200e-003	0.0000	2.0200e-003	5.0000e-004	0.0000	5.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0200e-003**	**0.0000**	**2.0200e-003**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	2.0200e-003	0.0000	2.0200e-003	5.0000e-004	0.0000	5.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0200e-003**	**0.0000**	**2.0200e-003**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5400e-003	0.0728	0.1217	2.0000e-004		3.1900e-003	3.1900e-003		3.1100e-003	3.1100e-003	0.0000	17.5500	17.5500	2.4300e-003	0.0000	17.6107
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5400e-003**	**0.0728**	**0.1217**	**2.0000e-004**		**3.1900e-003**	**3.1900e-003**		**3.1100e-003**	**3.1100e-003**	**0.0000**	**17.5500**	**17.5500**	**2.4300e-003**	**0.0000**	**17.6107**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7000e-004	0.0240	6.6800e-003	1.1000e-004	2.7100e-003	4.0000e-005	2.7500e-003	7.5000e-004	4.0000e-005	7.9000e-004	0.0000	11.0571	11.0571	4.8000e-004	0.0000	11.0691
Vendor	9.0000e-005	3.6000e-003	7.4000e-004	1.0000e-005	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	1.1686	1.1686	5.0000e-005	0.0000	1.1698

Worker	3.7000e-004	2.0000e-004	2.5000e-003	1.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	0.9726	0.9726	1.0000e-005	0.0000	0.9730
Total	**1.2300e-003**	**0.0278**	**9.9200e-003**	**1.3000e-004**	**4.5500e-003**	**5.0000e-005**	**4.6000e-003**	**1.2400e-003**	**5.0000e-005**	**1.2900e-003**	**0.0000**	**13.1983**	**13.1983**	**5.4000e-004**	**0.0000**	**13.2119**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1200e-003	9.2000e-003	0.1309	2.0000e-004		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	17.5499	17.5499	2.4300e-003	0.0000	17.6107
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1200e-003**	**9.2000e-003**	**0.1309**	**2.0000e-004**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**17.5499**	**17.5499**	**2.4300e-003**	**0.0000**	**17.6107**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7000e-004	0.0240	6.6800e-003	1.1000e-004	2.7100e-003	4.0000e-005	2.7500e-003	7.5000e-004	4.0000e-005	7.9000e-004	0.0000	11.0571	11.0571	4.8000e-004	0.0000	11.0691
Vendor	9.0000e-005	3.6000e-003	7.4000e-004	1.0000e-005	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	1.1686	1.1686	5.0000e-005	0.0000	1.1698
Worker	3.7000e-004	2.0000e-004	2.5000e-003	1.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	0.9726	0.9726	1.0000e-005	0.0000	0.9730
Total	**1.2300e-003**	**0.0278**	**9.9200e-003**	**1.3000e-004**	**4.5500e-003**	**5.0000e-005**	**4.6000e-003**	**1.2400e-003**	**5.0000e-005**	**1.2900e-003**	**0.0000**	**13.1983**	**13.1983**	**5.4000e-004**	**0.0000**	**13.2119**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Day-Care Center	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Enclosed Parking with Elevator	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
General Office Building	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Strip Mall	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Day-Care Center	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Calculation of average daily emissions from annual emission output from CalEEMod - Block 1

UNMITIGATED EMISSIONS

		Annual Emissions (TPY)				Average Daily Emissions (lb/day)			
Year	Work days	ROG	Nox	PM10	PM2.5	ROG	Nox	PM10	PM2.5
2022	219	0.1283	1.6265	0.0516	0.0482	1.17	14.85	0.47	0.44
2023	260	0.1416	1.6237	0.0558	0.052	1.09	12.49	0.43	0.40
2024	185	2.0933	0.9487	0.031	0.029	22.63	10.26	0.34	0.31
Total	664	2.3632	4.1989	0.1384	0.1292	7.12	12.65	0.42	0.39

MITIGATED EMISSIONS

		Annual Emissions (TPY)				Average Daily Emissions (lb/day)			
Year	Work days	ROG	Nox	PM10	PM2.5	ROG	Nox	PM10	PM2.5
2022	219	0.0577	0.9967	4.93E-03	4.85E-03	0.53	9.10	0.05	0.04
2023	260	0.0643	1.0164	4.59E-03	4.55E-03	0.49	7.82	0.04	0.04
2024	185	2.0481	0.6068	2.85E-03	2.82E-03	22.14	6.56	0.03	0.03
Total	664	2.1701	2.6199	0.01237	0.01222	6.54	7.89	0.04	0.04

Calculation of average daily emissions from annual emission output from CalEEMod - Block 2

UNMITIGATED EMISSIONS

		Annual Emissions (TPY)				Average Daily Emissions (lb/day)			
Year	Work days	ROG	Nox	PM10	PM2.5	ROG	Nox	PM10	PM2.5
2026	259	0.1289	1.404	0.0461	0.0432	1.00	10.84	0.36	0.33
2027	261	0.221	2.5177	0.0802	0.0749	1.69	19.29	0.61	0.57
2028	260	3.6017	0.4285	0.013	0.0122	27.71	3.30	0.10	0.09
2029	32	0.0108	0.1006	3.24E-03	3.16E-03	0.68	6.29	0.20	0.20
Total	812	3.9624	4.4508	0.14254	0.13346	9.76	10.96	0.35	0.33

MITIGATED EMISSIONS

		Annual Emissions (TPY)				Average Daily Emissions (lb/day)			
Year	Work days	ROG	Nox	PM10	PM2.5	ROG	Nox	PM10	PM2.5
2026	259	0.0561	0.8107	4.72E-03	4.68E-03	0.43	6.26	0.04	0.04
2027	261	0.101	1.594	8.40E-03	8.33E-03	0.77	12.21	0.06	0.06
2028	260	3.5921	0.2625	1.37E-03	1.34E-03	27.63	2.02	0.01	0.01
2029	32	3.34E-03	0.037	3.40E-04	3.30E-04	0.21	2.31	0.02	0.02
Total	812	3.75254	2.7042	0.01483	0.01468	9.24	6.66	0.04	0.04

CalEEmod Outputs Existing Operation

Lake Merritt BART Station Redevelopment Project Existing Emissions

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	103.30	1000sqft	1.38	103,296.00	0
Parking Lot	82.00	Space	0.00	32,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This is an operational run for existing non-trasnportation emissions only. Adjust CO2 EF to most recent PG&E verified factor.

Land Use - Adjust acreage to match block 2 site.

Construction Phase - Operational Run only for existing non-transportation emissions on site.

Off-road Equipment - Operational Run only for existing non-transportation emissions on site.

Grading - Operational Run only for existing non-transportation emissions on site.

Trips and VMT - Operational Run only for existing non-transportation emissions on site.

Architectural Coating -

Vehicle Trips - Operational Run only for existing non-transportation emissions on site.

Road Dust -

Consumer Products -

Energy Use -

Water And Wastewater -

Solid Waste - Altamont landfill 100% landfill capture

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	PhaseEndDate	8/27/2020	8/26/2020
tblLandUse	LotAcreage	2.37	1.38
tblLandUse	LotAcreage	0.74	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblSolidWaste	LandfillCaptureGasFlare	94.00	100.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	100.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	0.4603	2.0000e-005	1.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003
Energy	0.0108	0.0979	0.0822	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	230.4414	230.4414	0.0192	5.4900e-003	232.5571
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	19.9502	0.0000	19.9502	0.9893	0.0000	44.6819
Water						0.0000	0.0000		0.0000	0.0000	5.8248	13.2147	19.0394	0.6001	0.0145	38.3636
Total	**0.4710**	**0.0979**	**0.0839**	**5.9000e-004**	**0.0000**	**7.4500e-003**	**7.4500e-003**	**0.0000**	**7.4500e-003**	**7.4500e-003**	**25.7750**	**243.6593**	**269.4343**	**1.6085**	**0.0200**	**315.6061**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4603	2.0000e-005	1.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003
Energy	0.0108	0.0979	0.0822	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	230.4414	230.4414	0.0192	5.4900e-003	232.5571
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	19.9502	0.0000	19.9502	0.9893	0.0000	44.6819
Water						0.0000	0.0000		0.0000	0.0000	5.8248	13.2147	19.0394	0.6001	0.0145	38.3636
Total	**0.4710**	**0.0979**	**0.0839**	**5.9000e-004**	**0.0000**	**7.4500e-003**	**7.4500e-003**	**0.0000**	**7.4500e-003**	**7.4500e-003**	**25.7750**	**243.6593**	**269.4343**	**1.6085**	**0.0200**	**315.6061**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/26/2020	8/26/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Parking Lot	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	123.8892	123.8892	0.0171	3.5400e-003	125.3718
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	123.8892	123.8892	0.0171	3.5400e-003	125.3718
NaturalGas Mitigated	0.0108	0.0979	0.0822	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	106.5521	106.5521	2.0400e-003	1.9500e-003	107.1853
NaturalGas Unmitigated	0.0108	0.0979	0.0822	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	106.5521	106.5521	2.0400e-003	1.9500e-003	107.1853

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.99671e+006	0.0108	0.0979	0.0822	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	106.5521	106.5521	2.0400e-003	1.9500e-003	107.1853
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0108**	**0.0979**	**0.0822**	**5.9000e-004**		**7.4400e-003**	**7.4400e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**106.5521**	**106.5521**	**2.0400e-003**	**1.9500e-003**	**107.1853**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.99671e+006	0.0108	0.0979	0.0822	5.9000e-004		7.4400e-003	7.4400e-003		7.4400e-003	7.4400e-003	0.0000	106.5521	106.5521	2.0400e-003	1.9500e-003	107.1853
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0108**	**0.0979**	**0.0822**	**5.9000e-004**		**7.4400e-003**	**7.4400e-003**		**7.4400e-003**	**7.4400e-003**	**0.0000**	**106.5521**	**106.5521**	**2.0400e-003**	**1.9500e-003**	**107.1853**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.28913e+006	122.7957	0.0170	3.5100e-003	124.2652
Parking Lot	11480	1.0935	1.5000e-004	3.0000e-005	1.1066
Total		**123.8892**	**0.0171**	**3.5400e-003**	**125.3718**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.28913e+006	122.7957	0.0170	3.5100e-003	124.2652
Parking Lot	11480	1.0935	1.5000e-004	3.0000e-005	1.1066
Total		**123.8892**	**0.0171**	**3.5400e-003**	**125.3718**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4603	2.0000e-005	1.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003
Unmitigated	0.4603	2.0000e-005	1.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6000e-004	2.0000e-005	1.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003
Total	**0.4603**	**2.0000e-005**	**1.7100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.3100e-003**	**3.3100e-003**	**1.0000e-005**	**0.0000**	**3.5300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6000e-004	2.0000e-005	1.7100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.3100e-003	3.3100e-003	1.0000e-005	0.0000	3.5300e-003
Total	**0.4603**	**2.0000e-005**	**1.7100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.3100e-003**	**3.3100e-003**	**1.0000e-005**	**0.0000**	**3.5300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.0394	0.6001	0.0145	38.3636
Unmitigated	19.0394	0.6001	0.0145	38.3636

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
General Office Building	18.3599 / 11.2528	19.0394	0.6001	0.0145	38.3636
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.0394**	**0.6001**	**0.0145**	**38.3636**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	18.3599 / 11.2528	19.0394	0.6001	0.0145	38.3636
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.0394**	**0.6001**	**0.0145**	**38.3636**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	19.9502	0.9893	0.0000	44.6819
Unmitigated	19.9502	0.9893	0.0000	44.6819

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	96.07	19.9502	0.9893	0.0000	44.6819
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**19.9502**	**0.9893**	**0.0000**	**44.6819**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	96.07	19.9502	0.9893	0.0000	44.6819
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**19.9502**	**0.9893**	**0.0000**	**44.6819**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

CalEEmod Outputs Project Operation

Lake Merritt BART Station Redevelopment Project Operations

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	558.81	1000sqft	1.38	558,810.00	0
Day-Care Center	6.20	1000sqft	0.00	6,200.00	0
Enclosed Parking with Elevator	117.11	1000sqft	0.00	117,110.00	0
High Turnover (Sit Down Restaurant)	7.57	1000sqft	0.00	7,565.00	0
Apartments High Rise	557.00	Dwelling Unit	1.38	498,290.00	1092
Strip Mall	10.00	1000sqft	0.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 2.2

Precipitation Freq (Days) 63

Climate Zone 5

Operational Year 2030

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 210

CH4 Intensity (lb/MWhr) 0.029

N2O Intensity (lb/MWhr) 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised PG&e factoir to match latest available http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

Land Use - Adjust Acreage and square footage to match PD. ADjust population to reflect 1.96 pph per LMSP EIR p.3.1-7

Construction Phase - Operational Run only. Searate construction runs by phase.

Off-road Equipment - Equipment list provided by applicant

Off-road Equipment - Operational Run only. Searate construction runs by phase.

Trips and VMT - Operational Run only.

Demolition -

Grading -

Architectural Coating - Operational Run only. Searate construction runs by phase.

Vehicle Trips - Adjust trip rates to match transportation study.

Road Dust - Adjust for Alameda County-specific silt loading per CARB method 7.9

Woodstoves - Per 2030 ECAP Action B-1 new buildings will not use natural gas. No wood, pellet or natural gas hearths are assumed.

Consumer Products - Adjusted ROG EF for updated statewide paramters

Area Coating -

Landscape Equipment -

Energy Use - Per 2030 ECAP Action B-1 new buildings will not use natural gas. Converted KBTU to KWhr. Also, non-residential electricity adjusted 10.7 % to account for 2019 Title24. Residential 2%

Water And Wastewater - EBMUD WWTP systems all aerobic. Adjust indoor water down 20% to account for CalGreen reductions.

Solid Waste -

Construction Off-road Equipment Mitigation - Tier 4 equipment to be required per City of Oakland SCA

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	291,288.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	873,863.00	0.00
tblArchitecturalCoating	ConstArea_Parking	7,027.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	336,346.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	1,009,037.00	0.00
tblConstructionPhase	NumDays	10.00	1.00
tblConsumerProducts	ROG_EF	2.14E-05	1.6E-05
tblEnergyUse	NT24E	3,054.10	3,820.51
tblEnergyUse	NT24E	1.27	1.75
tblEnergyUse	NT24E	4.80	5.10
tblEnergyUse	NT24E	20.97	58.49
tblEnergyUse	NT24E	3.36	3.56

tblEnergyUse	NT24NG	2,615.00	0.00
tblEnergyUse	NT24NG	1.62	0.00
tblEnergyUse	NT24NG	1.01	0.00
tblEnergyUse	NT24NG	128.02	0.00
tblEnergyUse	NT24NG	0.70	0.00
tblEnergyUse	T24E	426.45	2,174.40
tblEnergyUse	T24E	0.66	4.48
tblEnergyUse	T24E	3.92	3.50
tblEnergyUse	T24E	4.10	8.46
tblEnergyUse	T24E	2.67	12.83
tblEnergyUse	T24E	2.24	3.02
tblEnergyUse	T24NG	6,115.43	0.00
tblEnergyUse	T24NG	14.85	0.00
tblEnergyUse	T24NG	18.32	0.00
tblEnergyUse	T24NG	39.90	0.00
tblEnergyUse	T24NG	3.90	0.00
tblFireplaces	NumberGas	83.55	0.00
tblFireplaces	NumberNoFireplace	22.28	557.00
tblFireplaces	NumberWood	94.69	0.00
tblLandUse	LandUseSquareFeet	7,570.00	7,565.00
tblLandUse	LandUseSquareFeet	557,000.00	498,290.00
tblLandUse	LotAcreage	12.83	1.38
tblLandUse	LotAcreage	0.14	0.00
tblLandUse	LotAcreage	2.69	0.00
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	LotAcreage	8.98	1.38
tblLandUse	LotAcreage	0.23	0.00
tblLandUse	Population	1,593.00	1,092.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210

tblRoadDust	RoadSiltLoading	0.1	0.032
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	750.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	128.00	0.00
tblVehicleTrips	ST_TR	4.98	2.94
tblVehicleTrips	ST_TR	6.21	1.96
tblVehicleTrips	ST_TR	2.46	1.04
tblVehicleTrips	ST_TR	158.37	17.48
tblVehicleTrips	ST_TR	42.04	17.48
tblVehicleTrips	SU_TR	3.65	2.16
tblVehicleTrips	SU_TR	5.83	1.84
tblVehicleTrips	SU_TR	1.05	0.45
tblVehicleTrips	SU_TR	131.84	8.50
tblVehicleTrips	SU_TR	20.43	8.50
tblVehicleTrips	WD_TR	4.20	2.48
tblVehicleTrips	WD_TR	74.06	23.38
tblVehicleTrips	WD_TR	11.03	4.69
tblVehicleTrips	WD_TR	127.15	18.43
tblVehicleTrips	WD_TR	44.32	18.43
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	36,290,792.27	29,032,634.00
tblWater	IndoorWaterUseRate	265,915.32	212,732.00
tblWater	IndoorWaterUseRate	99,319,395.72	79,455,517.00
tblWater	IndoorWaterUseRate	2,297,750.20	1,838,200.00
tblWater	IndoorWaterUseRate	740,725.21	592,580.20
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	11.14	0.00
tblWoodstoves	NumberNoncatalytic	11.14	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9447	0.0476	4.1313	2.2000e-004		0.0230	0.0230		0.0230	0.0230	0.0000	6.7682	6.7682	6.4700e-003	0.0000	6.9300
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1,401.5538	1,401.5538	0.1936	0.0400	1,418.3257
Mobile	0.6356	4.8945	6.7628	0.0344	1.4430	0.0215	1.4644	0.4277	0.0200	0.4478	0.0000	3,192.4388	3,192.4388	0.1187	0.0000	3,195.4061
Stationary	0.0615	0.2752	0.1569	3.0000e-004		9.0500e-003	9.0500e-003		9.0500e-003	9.0500e-003	0.0000	28.5598	28.5598	4.0000e-003	0.0000	28.6599

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Waste						0.0000	0.0000		0.0000	0.0000	179.5557	0.0000	179.5557	10.6114	0.0000	444.8415
Water						0.0000	0.0000		0.0000	0.0000	39.3186	85.6300	124.9486	0.1472	0.0880	154.8371
Total	**4.6418**	**5.2173**	**11.0510**	**0.0349**	**1.4430**	**0.0535**	**1.4965**	**0.4277**	**0.0520**	**0.4798**	**218.8742**	**4,714.9506**	**4,933.8249**	**11.0813**	**0.1280**	**5,249.0003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9447	0.0476	4.1313	2.2000e-004		0.0230	0.0230		0.0230	0.0230	0.0000	6.7682	6.7682	6.4700e-003	0.0000	6.9300
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1,401.5538	1,401.5538	0.1936	0.0400	1,418.3257
Mobile	0.6356	4.8945	6.7628	0.0344	1.4430	0.0215	1.4644	0.4277	0.0200	0.4478	0.0000	3,192.4388	3,192.4388	0.1187	0.0000	3,195.4061
Stationary	0.0615	0.2752	0.1569	3.0000e-004		9.0500e-003	9.0500e-003		9.0500e-003	9.0500e-003	0.0000	28.5598	28.5598	4.0000e-003	0.0000	28.6599
Waste						0.0000	0.0000		0.0000	0.0000	179.5557	0.0000	179.5557	10.6114	0.0000	444.8415
Water						0.0000	0.0000		0.0000	0.0000	39.3186	85.6300	124.9486	0.1472	0.0880	154.8371
Total	**4.6418**	**5.2173**	**11.0510**	**0.0349**	**1.4430**	**0.0535**	**1.4965**	**0.4277**	**0.0520**	**0.4798**	**218.8742**	**4,714.9506**	**4,933.8249**	**11.0813**	**0.1280**	**5,249.0003**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Building Construction	Architectural Coating	2/13/2026	2/13/2026	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Air Compressors	0	6.00	78	0.48
Building Construction	Cranes	0	8.00	231	0.29
Building Construction	Forklifts	0	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr									MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6356	4.8945	6.7628	0.0344	1.4430	0.0215	1.4644	0.4277	0.0200	0.4478	0.0000	3,192.4388	3,192.4388	0.1187	0.0000	3,195.4061
Unmitigated	0.6356	4.8945	6.7628	0.0344	1.4430	0.0215	1.4644	0.4277	0.0200	0.4478	0.0000	3,192.4388	3,192.4388	0.1187	0.0000	3,195.4061

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,381.36	1,637.58	1203.12	3,216,128	3,216,128
Day-Care Center	144.96	12.15	11.41	125,895	125,895
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	2,620.82	581.16	251.46	4,757,903	4,757,903
High Turnover (Sit Down Restaurant)	139.52	132.32	64.35	148,223	148,223
Strip Mall	184.30	174.80	85.00	259,892	259,892
Total	4,470.95	2,538.02	1,615.34	8,508,041	8,508,041

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Day-Care Center	9.50	7.30	7.30	12.70	82.30	5.00	28	58	14
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Day-Care Center	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Enclosed Parking with Elevator	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
General Office Building	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
High Turnover (Sit Down Restaurant)	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644
Strip Mall	0.566339	0.035990	0.189848	0.102849	0.012430	0.005068	0.026569	0.050520	0.002280	0.001770	0.005305	0.000389	0.000644

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,401.5538	1,401.5538	0.1936	0.0400	1,418.3257
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,401.5538	1,401.5538	0.1936	0.0400	1,418.3257
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

<u>Mitigated</u>

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Day-Care Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	3.75215e+006	357.4087	0.0494	0.0102	361.6857
Day-Care Center	54163.2	5.1593	7.1000e-004	1.5000e-004	5.2210

Enclosed Parking with Elevator	637196	60.6957	8.3800e-003	1.7300e-003	61.4220
General Office Building	9.57577e+006	912.1340	0.1260	0.0261	923.0492
High Turnover (Sit Down Restaurant)	579910	55.2390	7.6300e-003	1.5800e-003	55.9000
Strip Mall	114610	10.9171	1.5100e-003	3.1000e-004	11.0478
Total		**1,401.5538**	**0.1936**	**0.0400**	**1,418.3257**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	3.75215e+006	357.4087	0.0494	0.0102	361.6857
Day-Care Center	54163.2	5.1593	7.1000e-004	1.5000e-004	5.2210
Enclosed Parking with Elevator	637196	60.6957	8.3800e-003	1.7300e-003	61.4220
General Office Building	9.57577e+006	912.1340	0.1260	0.0261	923.0492
High Turnover (Sit Down Restaurant)	579910	55.2390	7.6300e-003	1.5800e-003	55.9000
Strip Mall	114610	10.9171	1.5100e-003	3.1000e-004	11.0478
Total		**1,401.5538**	**0.1936**	**0.0400**	**1,418.3257**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	3.9447	0.0476	4.1313	2.2000e-004		0.0230	0.0230		0.0230	0.0230	0.0000	6.7682	6.7682	6.4700e-003	0.0000	6.9300
Unmitigated	3.9447	0.0476	4.1313	2.2000e-004		0.0230	0.0230		0.0230	0.0230	0.0000	6.7682	6.7682	6.4700e-003	0.0000	6.9300

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.6570					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.1637					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1240	0.0476	4.1313	2.2000e-004		0.0230	0.0230		0.0230	0.0230	0.0000	6.7682	6.7682	6.4700e-003	0.0000	6.9300
Total	**3.9447**	**0.0476**	**4.1313**	**2.2000e-004**		**0.0230**	**0.0230**		**0.0230**	**0.0230**	**0.0000**	**6.7682**	**6.7682**	**6.4700e-003**	**0.0000**	**6.9300**

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.6570					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.1637					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1240	0.0476	4.1313	2.2000e-004		0.0230	0.0230		0.0230	0.0230	0.0000	6.7682	6.7682	6.4700e-003	0.0000	6.9300
Total	**3.9447**	**0.0476**	**4.1313**	**2.2000e-004**		**0.0230**	**0.0230**		**0.0230**	**0.0230**	**0.0000**	**6.7682**	**6.7682**	**6.4700e-003**	**0.0000**	**6.9300**

7.0 Water Detail

7.1 Mitigation Measures Water

Category	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	124.9486	0.1472	0.0880	154.8371
Unmitigated	124.9486	0.1472	0.0880	154.8371

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	29.0326 / 22.879	32.8635	0.0385	0.0230	40.6743
Day-Care Center	0.212732 / 0.683782	0.4129	3.1000e-004	1.7000e-004	0.4722
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	79.4555 / 60.8732	89.3591	0.1052	0.0629	110.7287
High Turnover (Sit Down Restaurant)	1.8382 / 0.146665	1.6467	2.3800e-003	1.4400e-003	2.1361
Strip Mall	0.59258 / 0.453993	0.6664	7.8000e-004	4.7000e-004	0.8258
Total		**124.9486**	**0.1472**	**0.0879**	**154.8371**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	29.0326 / 22.879	32.8635	0.0385	0.0230	40.6743
Day-Care Center	0.212732 / 0.683782	0.4129	3.1000e-004	1.7000e-004	0.4722
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	79.4555 / 60.8732	89.3591	0.1052	0.0629	110.7287
High Turnover (Sit Down Restaurant)	1.8382 / 0.146665	1.6467	2.3800e-003	1.4400e-003	2.1361
Strip Mall	0.59258 / 0.453993	0.6664	7.8000e-004	4.7000e-004	0.8258
Total		**124.9486**	**0.1472**	**0.0879**	**154.8371**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	179.5557	10.6114	0.0000	444.8415
Unmitigated	179.5557	10.6114	0.0000	444.8415

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	256.22	52.0103	3.0737	0.0000	128.8534
Day-Care Center	8.06	1.6361	0.0967	0.0000	4.0534
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	519.69	105.4924	6.2344	0.0000	261.3529
High Turnover (Sit Down Restaurant)	90.08	18.2854	1.0806	0.0000	45.3014

Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
Total		**179.5557**	**10.6114**	**0.0000**	**444.8416**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	256.22	52.0103	3.0737	0.0000	128.8534
Day-Care Center	8.06	1.6361	0.0967	0.0000	4.0534
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	519.69	105.4924	6.2344	0.0000	261.3529
High Turnover (Sit Down Restaurant)	90.08	18.2854	1.0806	0.0000	45.3014
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
Total		**179.5557**	**10.6114**	**0.0000**	**444.8416**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	0	50	750	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0615	0.2752	0.1569	3.0000e-004		9.0500e-003	9.0500e-003		9.0500e-003	9.0500e-003	0.0000	28.5598	28.5598	4.0000e-003	0.0000	28.6599
Total	**0.0615**	**0.2752**	**0.1569**	**3.0000e-004**		**9.0500e-003**	**9.0500e-003**		**9.0500e-003**	**9.0500e-003**	**0.0000**	**28.5598**	**28.5598**	**4.0000e-003**	**0.0000**	**28.6599**

11.0 Vegetation

Weekend Vehicle Trip Rate Conversion

Weekend Vehicle Trip Calculations - Lake Merritt BART Project

Per Fehr & Peers Project Trip Generation for weekday =

			Size	
Residential	2860	trips	557	units
Commercial	5420	trips	558.81	ksf
Retail/Restaurant	670	trips	17.565	ksf
Day Care	300	trips	6.2	ksf
Total =	9250	trips		

Post Adjustment Total = 4470 trips This is weekday

Reallocate adjusted trips to land use =

				Rate	
Residential	1382.076	trips	Weekday	2.481285	trip/unit
Commercial	2619.178	trips	Weekday	4.687064	trip/ksf
Retail/Restaurant	323.773	trips	Weekday	18.43285	trip/ksf
Day Care	144.973	trips	Weekday	23.38274	trip/ksf
Total =	4470				

CalEEMod Weekday and Weekend default rates from ITE =

	Weekday	Saturday	Sunday
Residential	4.2	4.98	3.65
Commercial	11.03	2.46	1.05
Retail/Restaurant	44.32	42.04	20.43
Day Care	74.06	6.21	5.83

Calculate weekend trips based on Project specific Trip demand from Fehr & Peers

	Saturday		Rate		Sunday		Rate	
Residential	1639	trips	2.942095	trip/unit	1201	trips	2.156355	trip/unit
Commercial	584	trips	1.045347	trip/ksf	249	trips	0.446185	trip/ksf
Retail/Restaurant	307	trips	17.48459	trip/ksf	149	trips	8.496911	trip/ksf
Day Care	12	trips	1.960664	trip/ksf	11	trips	1.840688	trip/ksf
	2542	trips			1611	trips		

Energy Conversions

Conversion of natural gas intensity to Electical intensity demand

Per City of Oakland 2030 ECAP Action B-1 new buildings will not use natural gas.

CalEEMod Energy use default values

	T24 Electricity (Kwh/size/yr)	Non- T24 Electricity (Kwh/size/yr)	Lighting	T24 nat gas energy intensity (kBTU/size/yr)	Non -T24 nat gas energy intensity (kBTU/size/yr)
Apartments High Rise	426.45	3,054.10	741.44	6,115.43	2,615
Day-Care Center	0.66	1.27	2.51	14.85	1.62
Enclosed Parking with Elevator	3.92	0.19	1.75	0	0
General Office Building	4.1	4.8	3.58	18.32	1.01
High Turnover (Sit Down Restaurant)	2.67	20.97	5.34	39.9	128.02
Strip Mall	2.24	3.36	4.88	3.9	0.7

Conversion Factor = 1 kBtu = 3.412 kWhr

Adjsuted values

	T24 Electricity (Kwh/size/yr)	Non- T24 Electricity (Kwh/size/yr)	Lighting	T24 nat gas energy intensity (kBTU/size/yr)	Non -T24 nat gas energy intensity (kBTU/size/yr)
Apartments High Rise	2218.780	3820.513	741.44	0.00	0
Day-Care Center	5.012	1.745	2.51	0	0
Enclosed Parking with Elevator	3.920	0.190	1.75	0	0
General Office Building	9.469	5.096	3.58	0	0
High Turnover (Sit Down Restaurant)	14.364	58.491	5.34	0	0
Strip Mall	3.383	3.565	4.88	0	0

2019 Title 24 Adjustment

California Energy Commission, Impact Analysis, 2019 Update to the California Energy Efficiency Standards for Residential and Non-Residential Buildings, Section 1.2 (Non-Residential), Table 19 (Multi-Family without PV), June 10, 2015. Available: https://ww2.energy.ca.gov/title24/2019standards/post_adoption/documents/2019_Impact_Analysis_Final_Report_2018-06-29.pdf. Accessed January 2020.

Non-Residential

% savings over Title 24 (2019)

	% savings over Title 24 (2016)		
	Electricity	Lighting	NG
Non-Residential:	10.7%	0%	1%

Residential

% savings over Title 24 (2019)

	% savings over Title 24 (2016)		
	Electricity	Lighting	NG
Multi-Family without PV:	2%	0%	5%

	T24 Electricity (Kwh/size/yr)
Apartments High Rise	2174.404
Day-Care Center	4.476
Enclosed Parking with Elevator	3.501
General Office Building	8.456
High Turnover (Sit Down Restaurant)	12.827
Strip Mall	3.021

Health Risk Assessment: AERMOD Input

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.8.3
** Lakes Environmental Software Inc.
** Date: 8/3/2020
** File: C:\Model\LakeMerritBART\LakeMerritBART.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Model\LakeMerritBART\LakeMerritBART.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   URBANOPT 4335391 San_Francisco-Oakland-Berkeley,_CA_MSA
   POLLUTID PM_10
   FLAGPOLE 1.80
   RUNORNOT RUN
   ERRORFIL LakeMerritBART.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION C_SW         AREA       564629.310  4183473.600        7.680
** DESCRSRC Construction SW corner 8th and oak
   LOCATION C_NE         AREA       564771.939  4183497.921        7.040
** DESCRSRC Construction NE corner 8th and oak
** ----------------------------------------------------------------------
** Line Source Represented by Area Sources
** LINE AREA Source ID = HAUL1
** DESCRSRC
** PREFIX
** Length of Side = 9.00
** Ratio = 10
** Vertical Dimension = 2.37
```

```
** Emission Rate = 0.0000831402
** Nodes = 11
** 565154.306, 4182803.529, 2.98, 2.55
** 565166.788, 4182881.986, 3.13, 2.55
** 565268.425, 4183029.984, 3.47, 2.55
** 565320.939, 4183079.923, 5.32, 2.55
** 565152.322, 4183129.850, 3.90, 2.55
** 565042.031, 4183181.194, 1.71, 2.55
** 564923.281, 4183285.193, 5.14, 2.55
** 564799.467, 4183386.606, 6.21, 2.55
** 564738.559, 4183415.811, 6.65, 2.55
** 564772.720, 4183488.244, 6.83, 2.55
** 564555.312, 4183594.404, 9.99, 2.55
** ------------------------------------------------------------------------
   LOCATION A0000031     AREA     565158.750 4182802.822 3.00
   LOCATION A0000032     AREA     565170.498 4182879.438 3.16
   LOCATION A0000033     AREA     565221.316 4182953.437 3.12
   LOCATION A0000034     AREA     565271.527 4183026.723 3.50
   LOCATION A0000035     AREA     565322.216 4183084.238 5.36
   LOCATION A0000036     AREA     565237.908 4183109.201 4.44
   LOCATION A0000037     AREA     565154.222 4183133.930 3.75
   LOCATION A0000038     AREA     565099.076 4183159.602 4.11
   LOCATION A0000039     AREA     565044.995 4183184.579 1.69
   LOCATION A0000040     AREA     564985.621 4183236.579 4.48
   LOCATION A0000041     AREA     564926.133 4183288.674 5.14
   LOCATION A0000042     AREA     564864.226 4183339.381 5.74
   LOCATION A0000043     AREA     564801.413 4183390.664 6.14
   LOCATION A0000044     AREA     564742.629 4183413.892 6.63
   LOCATION A0000045     AREA     564774.695 4183492.287 6.95
   LOCATION A0000046     AREA     564702.225 4183527.674 8.81
   LOCATION A0000047     AREA     564629.756 4183563.061 9.52
** End of LINE AREA Source ID = HAUL1
** ------------------------------------------------------------------------
** Line Source Represented by Area Sources
** LINE AREA Source ID = HAUL2
** DESCRSRC
** PREFIX
** Length of Side = 9.00
** Ratio = 10
** Vertical Dimension = 2.37
** Emission Rate = 0.000132301
** Nodes = 4
** 564039.460, 4183603.460, 7.59, 2.55
** 564363.617, 4183446.856, 6.64, 2.55
** 564423.849, 4183566.225, 8.95, 2.55
** 564736.086, 4183411.896, 6.69, 2.55
** ------------------------------------------------------------------------
   LOCATION A0000048     AREA     564037.502 4183599.408 7.52
```

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   LOCATION A0000049     AREA     564102.334 4183568.087 7.70
   LOCATION A0000050     AREA     564167.165 4183536.766 11.42
   LOCATION A0000051     AREA     564231.997 4183505.446 12.35
   LOCATION A0000052     AREA     564296.828 4183474.125 8.96
   LOCATION A0000053     AREA     564367.635 4183444.829 6.52
   LOCATION A0000054     AREA     564397.751 4183504.514 7.21
   LOCATION A0000055     AREA     564421.855 4183562.191 8.98
   LOCATION A0000056     AREA     564499.914 4183523.609 8.43
   LOCATION A0000057     AREA     564577.973 4183485.027 7.95
   LOCATION A0000058     AREA     564656.033 4183446.444 7.40
** End of LINE AREA Source ID = HAUL2
   LOCATION EG_C         POINT      564598.390  4183491.790        7.220
** DESCRSRC Emergency Generator for Building C
   LOCATION EG_A         POINT      564764.101  4183574.826        8.560
** DESCRSRC Emergency Generator for Building A
** Source Parameters **
   SRCPARAM C_SW         0.0001322751     5.000    72.000   105.000   -65.000
1.400
   SRCPARAM C_NE         0.0001322751     5.000    72.000   105.000   -65.000
1.400
** LINE AREA Source ID = HAUL1
   SRCPARAM A0000031     0.0000831402     2.550    79.444     9.000   -80.961
2.372
   SRCPARAM A0000032     0.0000831402     2.550    89.769     9.000   -55.521
2.372
   SRCPARAM A0000033     0.0000831402     2.550    89.769     9.000   -55.521
2.372
   SRCPARAM A0000034     0.0000831402     2.550    72.467     9.000   -43.561
2.372
   SRCPARAM A0000035     0.0000831402     2.550    87.926     9.000  -163.506
2.372
   SRCPARAM A0000036     0.0000831402     2.550    87.926     9.000  -163.506
2.372
   SRCPARAM A0000037     0.0000831402     2.550    60.829     9.000  -155.037
2.372
   SRCPARAM A0000038     0.0000831402     2.550    60.829     9.000  -155.037
2.372
   SRCPARAM A0000039     0.0000831402     2.550    78.926     9.000  -138.789
2.372
   SRCPARAM A0000040     0.0000831402     2.550    78.926     9.000  -138.789
2.372
   SRCPARAM A0000041     0.0000831402     2.550    80.023     9.000  -140.680
2.372
   SRCPARAM A0000042     0.0000831402     2.550    80.023     9.000  -140.680
2.372
   SRCPARAM A0000043     0.0000831402     2.550    67.548     9.000  -154.383
2.372
   SRCPARAM A0000044     0.0000831402     2.550    80.084     9.000   -64.750
```

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2.372
   SRCPARAM A0000045     0.0000831402     2.550    80.648     9.000  -153.974
2.372
   SRCPARAM A0000046     0.0000831402     2.550    80.648     9.000  -153.974
2.372
   SRCPARAM A0000047     0.0000831402     2.550    80.648     9.000  -153.974
2.372
** ------------------------------------------------------------------
** LINE AREA Source ID = HAUL2
   SRCPARAM A0000048     0.000132301     2.550    72.001     9.000    25.786
2.372
   SRCPARAM A0000049     0.000132301     2.550    72.001     9.000    25.786
2.372
   SRCPARAM A0000050     0.000132301     2.550    72.001     9.000    25.786
2.372
   SRCPARAM A0000051     0.000132301     2.550    72.001     9.000    25.786
2.372
   SRCPARAM A0000052     0.000132301     2.550    72.001     9.000    25.786
2.372
   SRCPARAM A0000053     0.000132301     2.550    66.852     9.000   -63.225
2.372
   SRCPARAM A0000054     0.000132301     2.550    66.852     9.000   -63.225
2.372
   SRCPARAM A0000055     0.000132301     2.550    87.074     9.000    26.302
2.372
   SRCPARAM A0000056     0.000132301     2.550    87.074     9.000    26.302
2.372
   SRCPARAM A0000057     0.000132301     2.550    87.074     9.000    26.302
2.372
   SRCPARAM A0000058     0.000132301     2.550    87.074     9.000    26.302
2.372
** ------------------------------------------------------------------
   SRCPARAM EG_C               1.0     3.658  1012.950  45.30000     0.183
   SRCPARAM EG_A               1.0     3.658  1012.950  45.30000     0.183

** Building Downwash **
   BUILDHGT EG_C            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_C            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_C            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_C            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_C            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_C            83.82    83.82    83.82    83.82    83.82    83.82

   BUILDHGT EG_A            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_A            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_A            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_A            83.82    83.82    83.82    83.82    83.82    83.82
   BUILDHGT EG_A            83.82    83.82    83.82    83.82    83.82    83.82
```

BUILDHGT	EG_A	83.82	83.82	83.82	83.82	83.82	83.82
BUILDWID	EG_C	65.08	57.41	55.31	63.26	69.29	73.22
BUILDWID	EG_C	74.92	74.34	71.51	66.50	62.63	60.20
BUILDWID	EG_C	67.06	71.94	74.63	75.59	74.31	70.77
BUILDWID	EG_C	65.08	57.41	55.31	63.26	69.29	73.22
BUILDWID	EG_C	74.92	74.34	71.51	66.50	62.63	60.20
BUILDWID	EG_C	67.06	71.94	74.63	75.59	74.31	70.77
BUILDWID	EG_A	61.86	60.71	61.07	62.94	69.29	73.22
BUILDWID	EG_A	74.92	74.34	71.51	36.95	29.44	26.20
BUILDWID	EG_A	31.99	40.70	48.17	54.18	58.54	61.13
BUILDWID	EG_A	61.86	60.71	61.07	62.94	69.29	73.22
BUILDWID	EG_A	74.92	74.34	71.51	36.95	29.44	26.20
BUILDWID	EG_A	31.99	40.70	48.17	54.18	58.54	61.13
BUILDLEN	EG_C	66.50	62.63	60.20	67.06	71.94	74.63
BUILDLEN	EG_C	75.59	74.31	70.77	65.08	57.41	55.31
BUILDLEN	EG_C	63.26	69.29	73.22	74.92	74.34	71.51
BUILDLEN	EG_C	66.50	62.63	60.20	67.06	71.94	74.63
BUILDLEN	EG_C	75.59	74.31	70.77	65.08	57.41	55.31
BUILDLEN	EG_C	63.26	69.29	73.22	74.92	74.34	71.51
BUILDLEN	EG_A	36.95	29.44	26.20	31.99	71.94	74.63
BUILDLEN	EG_A	75.59	74.31	70.77	61.86	60.71	61.07
BUILDLEN	EG_A	62.94	62.89	60.93	57.12	51.57	44.46
BUILDLEN	EG_A	36.95	29.44	26.20	31.99	71.94	74.63
BUILDLEN	EG_A	75.59	74.31	70.77	61.86	60.71	61.07
BUILDLEN	EG_A	62.94	62.89	60.93	57.12	51.57	44.46
XBADJ	EG_C	-1.70	0.14	-0.78	-4.89	-8.85	-12.54
XBADJ	EG_C	-15.85	-18.68	-20.94	-22.56	-23.50	-27.84
XBADJ	EG_C	-37.63	-46.28	-53.52	-59.14	-62.96	-64.87
XBADJ	EG_C	-64.81	-62.77	-59.43	-62.17	-63.09	-62.09
XBADJ	EG_C	-59.74	-55.63	-49.83	-42.51	-33.91	-27.47
XBADJ	EG_C	-25.63	-23.01	-19.70	-15.78	-11.38	-6.64
XBADJ	EG_A	-35.74	-33.18	-29.61	-29.78	-189.17	-197.57
XBADJ	EG_A	-199.97	-196.29	-186.65	-32.89	-29.71	-27.13
XBADJ	EG_A	-25.23	-22.56	-19.20	-15.27	-10.86	-6.13
XBADJ	EG_A	-1.21	3.74	3.41	-2.21	117.23	122.94
XBADJ	EG_A	124.37	121.98	115.88	-28.97	-30.99	-33.94
XBADJ	EG_A	-37.71	-40.33	-41.72	-41.85	-40.71	-38.33
YBADJ	EG_C	-9.97	-5.20	0.18	6.00	11.63	16.91
YBADJ	EG_C	21.68	25.79	29.12	31.56	31.46	29.32
YBADJ	EG_C	28.64	27.12	24.77	21.95	18.48	14.44
YBADJ	EG_C	9.97	5.20	-0.18	-6.00	-11.63	-16.91

```
   YBADJ    EG_C           -21.68   -25.79   -29.12   -31.56   -31.46   -29.32
   YBADJ    EG_C           -28.64   -27.12   -24.77   -21.95   -18.48   -14.44

   YBADJ    EG_A             1.96    -0.64    -3.40    -6.24    54.54    27.85
   YBADJ    EG_A             0.33   -27.21   -53.93   -17.26   -18.46   -16.51
   YBADJ    EG_A           -13.78   -12.58   -11.00    -9.09    -6.90    -4.49
   YBADJ    EG_A            -1.96     0.64     3.40     6.24   -54.54   -27.85
   YBADJ    EG_A            -0.33    27.21    53.93    17.26    18.46    16.51
   YBADJ    EG_A            13.78    12.58    11.00     9.09     6.90     4.49

   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT C_SW         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT C_SW         HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT C_SW         HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT C_SW         HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT C_NE         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT C_NE         HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT C_NE         HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT C_NE         HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT A0000031     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT A0000031     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000031     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000031     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT A0000032     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT A0000032     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000032     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000032     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT A0000033     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT A0000033     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000033     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000033     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
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   EMISFACT A0000034     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000034     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000034     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT A0000035     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT A0000035     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000035     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT A0000036     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT A0000036     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000036     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
   EMISFACT A0000036     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
   EMISFACT A0000037     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT A0000037     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
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EMISFACT A0000037     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000037     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000038     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000038     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000038     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000038     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000039     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000039     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000039     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000039     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000040     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000040     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000040     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000040     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000041     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000041     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000041     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000041     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000042     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000042     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000042     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000042     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000043     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000043     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000043     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000044     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000044     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000044     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000045     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000045     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000045     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000046     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000046     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000046     HROFDY 1.71 1.71 1.71 0.0 0.0 0.0
EMISFACT A0000047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000047     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
EMISFACT A0000047     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
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EMISFACT A0000048     HROFDY 1.71 1.71 1.71 1.71 1.71 1.71
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EMISFACT A0000049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT A0000049     HROFDY 0.0 1.71 1.71 1.71 1.71 1.71
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   SRCGROUP C_SW     C_SW
   SRCGROUP EG_A     EG_A
   SRCGROUP EG_C     EG_C
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   SRCGROUP HAUL2    A0000048 A0000049 A0000050 A0000051 A0000052 A0000053
   SRCGROUP HAUL2    A0000054 A0000055 A0000056 A0000057 A0000058
SO FINISHED
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** AERMOD Receptor Pathway
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**
**
RE STARTING
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RE FINISHED
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*************************************
** AERMOD Meteorology Pathway
*************************************
**
**
ME STARTING
   SURFFILE "..\1510 Webster\1510Webster_Construction\1510Webster_Construction.SFC"
   PROFFILE "..\1510 Webster\1510Webster_Construction\1510Webster_Construction.PFL"
   SURFDATA 23230 2013 OAKLAND/WSO_AP
   UAIRDATA 23230 2013 OAKLAND/WSO_AP
   PROFBASE 1.8 METERS
ME FINISHED
**
*************************************
** AERMOD Output Pathway
*************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
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   PLOTFILE 1 C_SW 1ST LakeMerritBART.AD\01H1G002.PLT 32
   PLOTFILE 1 EG_A 1ST LakeMerritBART.AD\01H1G003.PLT 33
   PLOTFILE 1 EG_C 1ST LakeMerritBART.AD\01H1G004.PLT 34
   PLOTFILE 1 HAUL1 1ST LakeMerritBART.AD\01H1G005.PLT 35
   PLOTFILE 1 HAUL2 1ST LakeMerritBART.AD\01H1G006.PLT 36
   PLOTFILE PERIOD C_NE LakeMerritBART.AD\PE00G001.PLT 37
   PLOTFILE PERIOD C_SW LakeMerritBART.AD\PE00G002.PLT 38
   PLOTFILE PERIOD EG_A LakeMerritBART.AD\PE00G003.PLT 39
   PLOTFILE PERIOD EG_C LakeMerritBART.AD\PE00G004.PLT 40
   PLOTFILE PERIOD HAUL1 LakeMerritBART.AD\PE00G005.PLT 41
   PLOTFILE PERIOD HAUL2 LakeMerritBART.AD\PE00G006.PLT 42
   SUMMFILE LakeMerritBART.sum
OU FINISHED
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** Project Parameters
***************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
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Health Risk Assessment: Unmitigated Construction HRA

All Receptors - Construction Cancer Risk

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Unmitigated DPM (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	91	215	0	306	4.99E-02	1.42E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	365	0	365	5.49E-02	5.60E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	150	78	228	3.04E-02	3.30E-04	5.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	507	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	0	0	361	361	4.54E-02	5.20E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	0	365	365	7.88E-02	1.12E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	0	366	366	1.26E-02	9.00E-05	9.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	3.19E-03	4.00E-05	0.00E+00

				Total Unmitigated DPM (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.71E-03	2.41E-06	1.52E-06
2023	1	1/1/2023	12/31/2023	1.58E-03	8.65E-07	5.45E-07
2024	1	1/1/2024	8/15/2024	1.40E-03	8.93E-07	5.63E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.32E-03	7.93E-07	5.00E-07
2027	2	1/1/2027	12/31/2027	2.27E-03	1.57E-06	9.87E-07
2028	2	1/1/2028	12/31/2028	3.62E-04	4.01E-07	2.53E-07
2029	2	1/1/2029	2/13/2029	7.61E-04	3.96E-07	2.50E-07

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	2<16
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572
Fraction Of Time At Home	FAH	unitless	1	1	1
Exposure Frequency	EF	days/year	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3
Inhalation Absorption Factor	A	unitless	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70

Intake Factor for Inhalation, IF (m^3/kg-day)

	Year	Equation	3rd Trimester	0<2	2<16
Phase 1 Construction	2022	DBR*FAH*EF*ED*ASF*A*CF/AT	0.012	0.088	0.000
	2023		0.000	0.149	0.000
	2024		0.000	0.061	0.005
Inactive	2025		0.000	0.000	0.033
Phase 2 Construction	2026		0.000	0.000	0.023
	2027		0.000	0.000	0.024
	2028		0.000	0.000	0.024
	2029		0.000	0.000	0.003

Risk Calculation Part 1, R1

Year		3rd Trimester	0<2	2<16
2022	IF*CPF*CF	1.36E-05	9.67E-05	0.00E+00
2023		0.00E+00	1.64E-04	0.00E+00
2024		0.00E+00	6.75E-05	5.53E-06
2025		0.00E+00	0.00E+00	3.59E-05
2026		0.00E+00	0.00E+00	2.56E-05
2027		0.00E+00	0.00E+00	2.59E-05
2028		0.00E+00	0.00E+00	2.59E-05
2029		0.00E+00	0.00E+00	3.12E-06

MAX	Cancer Risk	UTM X	UTM Y
Unmitigated	38.59	564710	4183510
receptor type	potential residence		

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) / Risk Calculation Part 2

			Unmitigated								Receptor Type	∑R1*C_{DPM}			
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564550_4183170	564550	4183170	2.42E-03	2.23E-03	1.98E-03	0.00E+00	2.60E-03	4.46E-03	7.13E-04	1.50E-03	potential residence	3.28E-08	7.34E-07	2.16E-07	0.98
564570_4183170	564570	4183170	2.49E-03	2.30E-03	2.04E-03	0.00E+00	2.71E-03	4.66E-03	7.44E-04	1.56E-03	potential residence	3.38E-08	7.55E-07	2.25E-07	1.01
564590_4183170	564590	4183170	2.56E-03	2.36E-03	2.09E-03	0.00E+00	2.83E-03	4.85E-03	7.75E-04	1.63E-03	potential residence	3.47E-08	7.76E-07	2.35E-07	1.05
564610_4183170	564610	4183170	2.63E-03	2.42E-03	2.15E-03	0.00E+00	2.94E-03	5.06E-03	8.07E-04	1.70E-03	potential residence	3.57E-08	7.97E-07	2.44E-07	1.08
564630_4183170	564630	4183170	2.72E-03	2.50E-03	2.22E-03	0.00E+00	3.09E-03	5.30E-03	8.47E-04	1.78E-03	potential residence	3.69E-08	8.24E-07	2.56E-07	1.12
564650_4183170	564650	4183170	2.81E-03	2.59E-03	2.30E-03	0.00E+00	3.25E-03	5.58E-03	8.91E-04	1.87E-03	potential residence	3.82E-08	8.53E-07	2.69E-07	1.16
564670_4183170	564670	4183170	2.92E-03	2.69E-03	2.38E-03	0.00E+00	3.42E-03	5.88E-03	9.38E-04	1.97E-03	potential residence	3.96E-08	8.85E-07	2.83E-07	1.21
564690_4183170	564690	4183170	3.03E-03	2.79E-03	2.48E-03	0.00E+00	3.61E-03	6.20E-03	9.90E-04	2.08E-03	potential residence	4.11E-08	9.19E-07	2.98E-07	1.26
564510_4183190	564510	4183190	2.47E-03	2.28E-03	2.02E-03	0.00E+00	2.64E-03	4.53E-03	7.24E-04	1.52E-03	potential residence	3.35E-08	7.49E-07	2.19E-07	1.00
564530_4183190	564530	4183190	2.55E-03	2.35E-03	2.08E-03	0.00E+00	2.74E-03	4.71E-03	7.52E-04	1.58E-03	potential residence	3.45E-08	7.72E-07	2.28E-07	1.03
564550_4183190	564550	4183190	2.62E-03	2.41E-03	2.14E-03	0.00E+00	2.85E-03	4.90E-03	7.83E-04	1.65E-03	potential residence	3.56E-08	7.95E-07	2.37E-07	1.07
564570_4183190	564570	4183190	2.70E-03	2.49E-03	2.21E-03	0.00E+00	2.98E-03	5.12E-03	8.18E-04	1.72E-03	potential residence	3.66E-08	8.19E-07	2.48E-07	1.10
564590_4183190	564590	4183190	2.78E-03	2.56E-03	2.27E-03	0.00E+00	3.12E-03	5.36E-03	8.56E-04	1.80E-03	potential residence	3.77E-08	8.43E-07	2.59E-07	1.14
564610_4183190	564610	4183190	2.87E-03	2.64E-03	2.34E-03	0.00E+00	3.27E-03	5.61E-03	8.97E-04	1.88E-03	potential residence	3.89E-08	8.69E-07	2.71E-07	1.18
564630_4183190	564630	4183190	2.96E-03	2.72E-03	2.42E-03	0.00E+00	3.43E-03	5.89E-03	9.41E-04	1.98E-03	potential residence	4.01E-08	8.97E-07	2.84E-07	1.22
564650_4183190	564650	4183190	3.07E-03	2.82E-03	2.50E-03	0.00E+00	3.62E-03	6.22E-03	9.94E-04	2.09E-03	potential residence	4.16E-08	9.30E-07	3.00E-07	1.27
564670_4183190	564670	4183190	3.18E-03	2.93E-03	2.60E-03	0.00E+00	3.82E-03	6.56E-03	1.05E-03	2.20E-03	potential residence	4.31E-08	9.64E-07	3.16E-07	1.32
564690_4183190	564690	4183190	3.30E-03	3.04E-03	2.70E-03	0.00E+00	4.03E-03	6.93E-03	1.11E-03	2.33E-03	potential residence	4.48E-08	1.00E-06	3.33E-07	1.38
564710_4183190	564710	4183190	3.45E-03	3.17E-03	2.81E-03	0.00E+00	4.28E-03	7.35E-03	1.17E-03	2.47E-03	potential residence	4.68E-08	1.04E-06	3.53E-07	1.44
564730_4183190	564730	4183190	3.59E-03	3.31E-03	2.93E-03	0.00E+00	4.51E-03	7.76E-03	1.24E-03	2.60E-03	potential residence	4.87E-08	1.09E-06	3.72E-07	1.51
564470_4183210	564470	4183210	2.50E-03	2.30E-03	2.04E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	potential residence	3.38E-08	7.57E-07	2.25E-07	1.02
564490_4183210	564490	4183210	2.59E-03	2.38E-03	2.11E-03	0.00E+00	2.80E-03	4.81E-03	7.69E-04	1.62E-03	potential residence	3.51E-08	7.84E-07	2.33E-07	1.05
564510_4183210	564510	4183210	2.67E-03	2.46E-03	2.18E-03	0.00E+00	2.91E-03	5.00E-03	7.98E-04	1.68E-03	potential residence	3.63E-08	8.11E-07	2.41E-07	1.09
564530_4183210	564530	4183210	2.76E-03	2.55E-03	2.26E-03	0.00E+00	3.03E-03	5.20E-03	8.30E-04	1.75E-03	potential residence	3.75E-08	8.38E-07	2.51E-07	1.13
564550_4183210	564550	4183210	2.85E-03	2.63E-03	2.33E-03	0.00E+00	3.15E-03	5.42E-03	8.66E-04	1.82E-03	potential residence	3.87E-08	8.64E-07	2.62E-07	1.16
564570_4183210	564570	4183210	2.94E-03	2.70E-03	2.40E-03	0.00E+00	3.30E-03	5.66E-03	9.05E-04	1.90E-03	potential residence	3.98E-08	8.90E-07	2.73E-07	1.20
564590_4183210	564590	4183210	3.03E-03	2.79E-03	2.48E-03	0.00E+00	3.46E-03	5.95E-03	9.51E-04	2.00E-03	potential residence	4.11E-08	9.19E-07	2.87E-07	1.25
564610_4183210	564610	4183210	3.13E-03	2.88E-03	2.56E-03	0.00E+00	3.64E-03	6.26E-03	1.00E-03	2.10E-03	potential residence	4.25E-08	9.49E-07	3.02E-07	1.29
564630_4183210	564630	4183210	3.23E-03	2.98E-03	2.64E-03	0.00E+00	3.84E-03	6.59E-03	1.05E-03	2.21E-03	potential residence	4.39E-08	9.80E-07	3.17E-07	1.34
564650_4183210	564650	4183210	3.35E-03	3.09E-03	2.74E-03	0.00E+00	4.06E-03	6.97E-03	1.11E-03	2.34E-03	potential residence	4.55E-08	1.02E-06	3.35E-07	1.40
564670_4183210	564670	4183210	3.48E-03	3.20E-03	2.84E-03	0.00E+00	4.29E-03	7.37E-03	1.18E-03	2.47E-03	potential residence	4.72E-08	1.05E-06	3.54E-07	1.46
564690_4183210	564690	4183210	3.63E-03	3.34E-03	2.96E-03	0.00E+00	4.57E-03	7.85E-03	1.25E-03	2.64E-03	potential residence	4.93E-08	1.10E-06	3.77E-07	1.53
564430_4183230	564430	4183230	2.48E-03	2.29E-03	2.03E-03	0.00E+00	2.78E-03	4.78E-03	7.64E-04	1.61E-03	potential residence	3.37E-08	7.52E-07	2.31E-07	1.02
564450_4183230	564450	4183230	2.59E-03	2.38E-03	2.11E-03	0.00E+00	2.88E-03	4.96E-03	7.92E-04	1.66E-03	potential residence	3.51E-08	7.84E-07	2.39E-07	1.06
564470_4183230	564470	4183230	2.69E-03	2.48E-03	2.20E-03	0.00E+00	2.99E-03	5.14E-03	8.21E-04	1.73E-03	potential residence	3.65E-08	8.16E-07	2.48E-07	1.10
564490_4183230	564490	4183230	2.80E-03	2.58E-03	2.28E-03	0.00E+00	3.10E-03	5.33E-03	8.51E-04	1.79E-03	potential residence	3.79E-08	8.48E-07	2.57E-07	1.14
564510_4183230	564510	4183230	2.90E-03	2.67E-03	2.37E-03	0.00E+00	3.22E-03	5.54E-03	8.85E-04	1.86E-03	potential residence	3.94E-08	8.80E-07	2.68E-07	1.19
564530_4183230	564530	4183230	3.01E-03	2.77E-03	2.46E-03	0.00E+00	3.36E-03	5.77E-03	9.21E-04	1.94E-03	potential residence	4.08E-08	9.12E-07	2.78E-07	1.23
564550_4183230	564550	4183230	3.11E-03	2.87E-03	2.54E-03	0.00E+00	3.51E-03	6.03E-03	9.64E-04	2.03E-03	potential residence	4.22E-08	9.44E-07	2.91E-07	1.28
564570_4183230	564570	4183230	3.22E-03	2.96E-03	2.63E-03	0.00E+00	3.68E-03	6.33E-03	1.01E-03	2.12E-03	potential residence	4.36E-08	9.75E-07	3.05E-07	1.32
564590_4183230	564590	4183230	3.32E-03	3.06E-03	2.71E-03	0.00E+00	3.87E-03	6.66E-03	1.06E-03	2.24E-03	potential residence	4.51E-08	1.01E-06	3.21E-07	1.37
564610_4183230	564610	4183230	3.44E-03	3.16E-03	2.81E-03	0.00E+00	4.09E-03	7.02E-03	1.12E-03	2.36E-03	potential residence	4.66E-08	1.04E-06	3.38E-07	1.43

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2

			Unmitigated								Receptor Type	$\sum R1*C_{DPM}$			
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564630_4183230	564630	4183230	3.56E-03	3.27E-03	2.90E-03	0.00E+00	4.32E-03	7.43E-03	1.19E-03	2.50E-03	potential residence	4.82E-08	1.08E-06	3.57E-07	1.48
564650_4183230	564650	4183230	3.69E-03	3.40E-03	3.01E-03	0.00E+00	4.59E-03	7.89E-03	1.26E-03	2.65E-03	potential residence	5.01E-08	1.12E-06	3.79E-07	1.55
564670_4183230	564670	4183230	3.84E-03	3.54E-03	3.14E-03	0.00E+00	4.89E-03	8.40E-03	1.34E-03	2.82E-03	potential residence	5.21E-08	1.16E-06	4.03E-07	1.62
564390_4183250	564390	4183250	2.42E-03	2.23E-03	1.98E-03	0.00E+00	2.83E-03	4.86E-03	7.76E-04	1.63E-03	potential residence	3.28E-08	7.33E-07	2.34E-07	1.00
564410_4183250	564410	4183250	2.54E-03	2.34E-03	2.07E-03	0.00E+00	2.95E-03	5.08E-03	8.11E-04	1.70E-03	potential residence	3.44E-08	7.69E-07	2.45E-07	1.05
564430_4183250	564430	4183250	2.66E-03	2.45E-03	2.17E-03	0.00E+00	3.08E-03	5.29E-03	8.45E-04	1.78E-03	potential residence	3.61E-08	8.06E-07	2.55E-07	1.10
564450_4183250	564450	4183250	2.78E-03	2.56E-03	2.27E-03	0.00E+00	3.20E-03	5.50E-03	8.78E-04	1.85E-03	potential residence	3.77E-08	8.43E-07	2.65E-07	1.15
564470_4183250	564470	4183250	2.91E-03	2.68E-03	2.37E-03	0.00E+00	3.32E-03	5.71E-03	9.13E-04	1.92E-03	potential residence	3.94E-08	8.81E-07	2.76E-07	1.20
564490_4183250	564490	4183250	3.03E-03	2.79E-03	2.48E-03	0.00E+00	3.45E-03	5.94E-03	9.48E-04	1.99E-03	potential residence	4.11E-08	9.19E-07	2.86E-07	1.25
564510_4183250	564510	4183250	3.16E-03	2.91E-03	2.58E-03	0.00E+00	3.60E-03	6.18E-03	9.87E-04	2.07E-03	potential residence	4.29E-08	9.58E-07	2.98E-07	1.30
564530_4183250	564530	4183250	3.29E-03	3.03E-03	2.68E-03	0.00E+00	3.76E-03	6.45E-03	1.03E-03	2.17E-03	potential residence	4.46E-08	9.96E-07	3.11E-07	1.35
564550_4183250	564550	4183250	3.41E-03	3.14E-03	2.79E-03	0.00E+00	3.94E-03	6.76E-03	1.08E-03	2.27E-03	potential residence	4.63E-08	1.03E-06	3.26E-07	1.41
564570_4183250	564570	4183250	3.54E-03	3.26E-03	2.89E-03	0.00E+00	4.14E-03	7.11E-03	1.14E-03	2.39E-03	potential residence	4.79E-08	1.07E-06	3.42E-07	1.46
564590_4183250	564590	4183250	3.67E-03	3.38E-03	2.99E-03	0.00E+00	4.37E-03	7.52E-03	1.20E-03	2.52E-03	potential residence	4.97E-08	1.11E-06	3.62E-07	1.52
564610_4183250	564610	4183250	3.80E-03	3.50E-03	3.10E-03	0.00E+00	4.64E-03	7.97E-03	1.27E-03	2.68E-03	potential residence	5.15E-08	1.15E-06	3.83E-07	1.59
564630_4183250	564630	4183250	3.94E-03	3.63E-03	3.22E-03	0.00E+00	4.93E-03	8.48E-03	1.35E-03	2.85E-03	potential residence	5.34E-08	1.19E-06	4.07E-07	1.65
564650_4183250	564650	4183250	4.09E-03	3.76E-03	3.34E-03	0.00E+00	5.25E-03	9.02E-03	1.44E-03	3.03E-03	potential residence	5.54E-08	1.24E-06	4.33E-07	1.73
564350_4183270	564350	4183270	2.31E-03	2.13E-03	1.89E-03	0.00E+00	2.81E-03	4.83E-03	7.71E-04	1.62E-03	potential residence	3.14E-08	7.01E-07	2.32E-07	0.96
564370_4183270	564370	4183270	2.44E-03	2.25E-03	1.99E-03	0.00E+00	2.96E-03	5.09E-03	8.13E-04	1.71E-03	potential residence	3.31E-08	7.39E-07	2.45E-07	1.02
564390_4183270	564390	4183270	2.57E-03	2.37E-03	2.10E-03	0.00E+00	3.12E-03	5.36E-03	8.55E-04	1.80E-03	potential residence	3.48E-08	7.79E-07	2.58E-07	1.07
564410_4183270	564410	4183270	2.70E-03	2.49E-03	2.21E-03	0.00E+00	3.27E-03	5.61E-03	8.96E-04	1.88E-03	potential residence	3.67E-08	8.19E-07	2.70E-07	1.13
564430_4183270	564430	4183270	2.85E-03	2.62E-03	2.32E-03	0.00E+00	3.42E-03	5.88E-03	9.39E-04	1.97E-03	potential residence	3.86E-08	8.63E-07	2.83E-07	1.18
564450_4183270	564450	4183270	2.99E-03	2.75E-03	2.44E-03	0.00E+00	3.57E-03	6.13E-03	9.79E-04	2.06E-03	potential residence	4.06E-08	9.07E-07	2.95E-07	1.24
564470_4183270	564470	4183270	3.15E-03	2.90E-03	2.57E-03	0.00E+00	3.73E-03	6.41E-03	1.02E-03	2.15E-03	potential residence	4.27E-08	9.53E-07	3.08E-07	1.30
564490_4183270	564490	4183270	3.30E-03	3.04E-03	2.69E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.24E-03	potential residence	4.48E-08	1.00E-06	3.22E-07	1.37
564510_4183270	564510	4183270	3.46E-03	3.19E-03	2.82E-03	0.00E+00	4.07E-03	6.99E-03	1.12E-03	2.35E-03	potential residence	4.69E-08	1.05E-06	3.37E-07	1.43
564530_4183270	564530	4183270	3.60E-03	3.31E-03	2.94E-03	0.00E+00	4.23E-03	7.27E-03	1.16E-03	2.44E-03	potential residence	4.88E-08	1.09E-06	3.50E-07	1.49
564550_4183270	564550	4183270	3.76E-03	3.46E-03	3.07E-03	0.00E+00	4.45E-03	7.64E-03	1.22E-03	2.57E-03	potential residence	5.09E-08	1.14E-06	3.68E-07	1.56
564570_4183270	564570	4183270	3.91E-03	3.60E-03	3.19E-03	0.00E+00	4.70E-03	8.08E-03	1.29E-03	2.71E-03	potential residence	5.31E-08	1.19E-06	3.89E-07	1.63
564590_4183270	564590	4183270	4.07E-03	3.75E-03	3.32E-03	0.00E+00	5.00E-03	8.59E-03	1.37E-03	2.89E-03	potential residence	5.52E-08	1.23E-06	4.13E-07	1.70
564610_4183270	564610	4183270	4.22E-03	3.89E-03	3.45E-03	0.00E+00	5.31E-03	9.12E-03	1.46E-03	3.06E-03	potential residence	5.73E-08	1.28E-06	4.38E-07	1.77
564310_4183290	564310	4183290	2.17E-03	2.00E-03	1.77E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	potential residence	2.95E-08	6.59E-07	2.23E-07	0.91
564330_4183290	564330	4183290	2.30E-03	2.12E-03	1.88E-03	0.00E+00	2.88E-03	4.94E-03	7.90E-04	1.66E-03	potential residence	3.12E-08	6.96E-07	2.37E-07	0.97
564350_4183290	564350	4183290	2.43E-03	2.24E-03	1.98E-03	0.00E+00	3.06E-03	5.26E-03	8.40E-04	1.76E-03	potential residence	3.30E-08	7.37E-07	2.52E-07	1.02
564370_4183290	564370	4183290	2.57E-03	2.37E-03	2.10E-03	0.00E+00	3.24E-03	5.58E-03	8.91E-04	1.87E-03	potential residence	3.49E-08	7.79E-07	2.68E-07	1.08
564390_4183290	564390	4183290	2.72E-03	2.50E-03	2.22E-03	0.00E+00	3.43E-03	5.90E-03	9.42E-04	1.98E-03	potential residence	3.69E-08	8.24E-07	2.83E-07	1.14
564410_4183290	564410	4183290	2.88E-03	2.65E-03	2.35E-03	0.00E+00	3.62E-03	6.23E-03	9.95E-04	2.09E-03	potential residence	3.90E-08	8.72E-07	2.99E-07	1.21
564430_4183290	564430	4183290	3.04E-03	2.80E-03	2.48E-03	0.00E+00	3.82E-03	6.56E-03	1.05E-03	2.20E-03	potential residence	4.13E-08	9.22E-07	3.15E-07	1.28
564450_4183290	564450	4183290	3.22E-03	2.97E-03	2.63E-03	0.00E+00	4.03E-03	6.92E-03	1.10E-03	2.32E-03	potential residence	4.37E-08	9.77E-07	3.32E-07	1.35
564470_4183290	564470	4183290	3.40E-03	3.13E-03	2.78E-03	0.00E+00	4.21E-03	7.24E-03	1.16E-03	2.43E-03	potential residence	4.62E-08	1.03E-06	3.48E-07	1.43
564490_4183290	564490	4183290	3.59E-03	3.31E-03	2.93E-03	0.00E+00	4.42E-03	7.59E-03	1.21E-03	2.55E-03	potential residence	4.87E-08	1.09E-06	3.65E-07	1.50
564510_4183290	564510	4183290	3.79E-03	3.49E-03	3.09E-03	0.00E+00	4.63E-03	7.96E-03	1.27E-03	2.67E-03	potential residence	5.14E-08	1.15E-06	3.83E-07	1.58
564530_4183290	564530	4183290	3.96E-03	3.65E-03	3.23E-03	0.00E+00	4.82E-03	8.29E-03	1.32E-03	2.78E-03	potential residence	5.37E-08	1.20E-06	3.99E-07	1.65
564550_4183290	564550	4183290	4.15E-03	3.82E-03	3.39E-03	0.00E+00	5.08E-03	8.72E-03	1.39E-03	2.93E-03	potential residence	5.63E-08	1.26E-06	4.19E-07	1.73
564570_4183290	564570	4183290	4.34E-03	4.00E-03	3.54E-03	0.00E+00	5.39E-03	9.26E-03	1.48E-03	3.11E-03	potential residence	5.89E-08	1.32E-06	4.45E-07	1.82
564290_4183310	564290	4183310	2.13E-03	1.96E-03	1.74E-03	0.00E+00	2.70E-03	4.64E-03	7.41E-04	1.56E-03	potential residence	2.89E-08	6.45E-07	2.23E-07	0.90
564310_4183310	564310	4183310	2.26E-03	2.08E-03	1.84E-03	0.00E+00	2.89E-03	4.97E-03	7.95E-04	1.67E-03	potential residence	3.06E-08	6.84E-07	2.39E-07	0.95
564330_4183310	564330	4183310	2.40E-03	2.20E-03	1.96E-03	0.00E+00	3.10E-03	5.33E-03	8.52E-04	1.79E-03	potential residence	3.25E-08	7.26E-07	2.56E-07	1.01
564350_4183310	564350	4183310	2.54E-03	2.34E-03	2.08E-03	0.00E+00	3.32E-03	5.71E-03	9.11E-04	1.92E-03	potential residence	3.45E-08	7.70E-07	2.74E-07	1.08
564370_4183310	564370	4183310	2.70E-03	2.49E-03	2.21E-03	0.00E+00	3.55E-03	6.10E-03	9.75E-04	2.05E-03	potential residence	3.66E-08	8.19E-07	2.93E-07	1.15
564390_4183310	564390	4183310	2.87E-03	2.64E-03	2.34E-03	0.00E+00	3.79E-03	6.52E-03	1.04E-03	2.19E-03	potential residence	3.90E-08	8.71E-07	3.12E-07	1.22
564410_4183310	564410	4183310	3.06E-03	2.81E-03	2.49E-03	0.00E+00	4.04E-03	6.94E-03	1.11E-03	2.33E-03	potential residence	4.14E-08	9.26E-07	3.33E-07	1.30
564430_4183310	564430	4183310	3.25E-03	2.99E-03	2.65E-03	0.00E+00	4.28E-03	7.36E-03	1.18E-03	2.47E-03	potential residence	4.41E-08	9.84E-07	3.53E-07	1.38
564450_4183310	564450	4183310	3.46E-03	3.19E-03	2.82E-03	0.00E+00	4.55E-03	7.82E-03	1.25E-03	2.62E-03	potential residence	4.69E-08	1.05E-06	3.75E-07	1.47
564470_4183310	564470	4183310	3.68E-03	3.39E-03	3.00E-03	0.00E+00	4.80E-03	8.25E-03	1.32E-03	2.77E-03	potential residence	4.99E-08	1.12E-06	3.96E-07	1.56
564490_4183310	564490	4183310	3.91E-03	3.59E-03	3.19E-03	0.00E+00	5.04E-03	8.67E-03	1.38E-03	2.91E-03	potential residence	5.30E-08	1.18E-06	4.16E-07	1.65
564510_4183310	564510	4183310	4.14E-03	3.81E-03	3.38E-03	0.00E+00	5.29E-03	9.10E-03	1.45E-03	3.05E-03	potential residence	5.61E-08	1.25E-06	4.36E-07	1.75
564530_4183310	564530	4183310	4.36E-03	4.01E-03	3.56E-03	0.00E+00	5.55E-03	9.53E-03	1.52E-03	3.20E-03	potential residence	5.92E-08	1.32E-06	4.58E-07	1.84
564290_4183330	564290	4183330	2.20E-03	2.02E-03	1.79E-03	0.00E+00	2.86E-03	4.92E-03	7.86E-04	1.65E-03	potential residence	2.98E-08	6.65E-07	2.36E-07	0.93
564310_4183330	564310	4183330	2.34E-03	2.15E-03	1.91E-03	0.00E+00	3.09E-03	5.31E-03	8.48E-04	1.78E-03	potential residence	3.17E-08	7.08E-07	2.54E-07	0.99
564330_4183330	564330	4183330	2.49E-03	2.29E-03	2.03E-03	0.00E+00	3.33E-03	5.73E-03	9.15E-04	1.92E-03	potential residence	3.37E-08	7.53E-07	2.74E-07	1.06
564350_4183330	564350	4183330	2.65E-03	2.44E-03	2.16E-03	0.00E+00	3.60E-03	6.19E-03	9.89E-04	2.08E-03	potential residence	3.60E-08	8.04E-07	2.96E-07	1.14
564370_4183330	564370	4183330	2.83E-03	2.61E-03	2.31E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.25E-03	potential residence	3.84E-08	8.58E-07	3.20E-07	1.22
564390_4183330	564390	4183330	3.03E-03	2.79E-03	2.47E-03	0.00E+00	4.19E-03	7.21E-03	1.15E-03	2.42E-03	potential residence	4.11E-08	9.17E-07	3.45E-07	1.30
564410_4183330	564410	4183330	3.24E-03	2.98E-03	2.64E-03	0.00E+00	4.51E-03	7.75E-03	1.24E-03	2.60E-03	potential residence	4.39E-08	9.81E-07	3.71E-07	1.39
564430_4183330	564430	4183330	3.46E-03	3.18E-03	2.82E-03	0.00E+00	4.82E-03	8.29E-03	1.32E-03	2.78E-03	potential residence	4.69E-08	1.05E-06	3.96E-07	1.49
564450_4183330	564450	4183330	3.71E-03	3.41E-03	3.02E-03	0.00E+00	5.16E-03	8.87E-03	1.42E-03	2.98E-03	potential residence	5.03E-08	1.12E-06	4.24E-07	1.60
564470_4183330	564470	4183330	3.97E-03	3.65E-03	3.24E-03	0.00E+00	5.51E-03	9.47E-03	1.51E-03	3.18E-03	potential residence	5.39E-08	1.20E-06	4.53E-07	1.71
564490_4183330	564490	4183330	4.24E-03	3.90E-03	3.46E-03	0.00E+00	5.81E-03	9.98E-03	1.59E-03	3.35E-03	potential residence	5.75E-08	1.28E-06	4.77E-07	1.82
564270_4183350	564270	4183350	2.12E-03	1.95E-03	1.73E-03	0.00E+00	2.78E-03	4.79E-03	7.64E-04	1.61E-03	potential residence	2.87E-08	6.42E-07	2.29E-07	0.90
564290_4183350	564290	4183350	2.26E-03	2.08E-03	1.84E-03	0.00E+00	3.02E-03	5.19E-03	8.29E-04	1.74E-03	potential residence	3.06E-08	6.83E-07	2.48E-07	0.96
564310_4183350	564310	4183350	2.41E-03	2.21E-03	1.96E-03	0.00E+00	3.28E-03	5.63E-03	9.00E-04	1.89E-03	potential residence	3.26E-08	7.29E-07	2.70E-07	1.03
564330_4183350	564330	4183350	2.57E-03	2.37E-03	2.10E-03	0.00E+00	3.57E-03	6.13E-03	9.80E-04	2.06E-03	potential residence	3.49E-08	7.80E-07	2.93E-07	1.11
564350_4183350	564350	4183350	2.76E-03	2.54E-03	2.25E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.25E-03	potential residence	3.74E-08	8.35E-07	3.20E-07	1.19
564370_4183350	564370	4183350	2.96E-03	2.72E-03	2.41E-03	0.00E+00	4.24E-03	7.29E-03	1.17E-03	2.45E-03	potential residence	4.01E-08	8.95E-07	3.48E-07	1.28
564390_4183350	564390	4183350	3.17E-03	2.92E-03	2.59E-03	0.00E+00	4.62E-03	7.95E-03	1.27E-03	2.67E-03	potential residence	4.31E-08	9.61E-07	3.79E-07	1.38
564410_4183350	564410	4183350	3.41E-03	3.14E-03	2.78E-03	0.00E+00	5.03E-03	8.65E-03	1.38E-03	2.90E-03	potential residence	4.63E-08	1.03E-06	4.12E-07	1.49
564430_4183350	564430	4183350	3.67E-03	3.38E-03	3.00E-03	0.00E+00	5.45E-03	9.37E-03	1.50E-03	3.15E-03	potential residence	4.98E-08	1.11E-06	4.47E-07	1.61
564450_4183350	564450	4183350	3.96E-03	3.64E-03	3.23E-03	0.00E+00	5.89E-03	1.01E-02	1.62E-03	3.40E-03	potential residence	5.36E-08	1.20E-06	4.83E-07	1.73
564270_4183370	564270	4183370	2.16E-03	1.99E-03	1.76E-03	0.00E+00	2.90E-03	4.99E-03	7.97E-04	1.68E-03	potential residence	2.94E-08	6.55E-07	2.39E-07	0.92
564290_4183370	564290	4183370	2.31E-03	2.12E-03	1.88E-03	0.00E+00	3.17E-03	5.45E-03	8.70E-04	1.83E-03	potential residence	3.14E-08	7.00E-07	2.61E-07	0.99
564310_4183370	564310	4183370	2.47E-03	2.27E-03	2.02E-03	0.00E+00	3.47E-03	5.96E-03	9.52E-04	2.00E-03	potential residence	3.36E-08	7.49E-07	2.85E-07	1.07
564330_4183370	564330	4183370	2.65E-03	2.44E-03	2.16E-03	0.00E+00	3.80E-03	6.53E-03	1.04E-03	2.19E-03	potential residence	3.60E-08	8.03E-07	3.12E-07	1.15
564350_4183370	564350	4183370	2.85E-03	2.62E-03	2.32E-03	0.00E+00	4.18E-03	7.18E-03	1.15E-03	2.41E-03	potential residence	3.87E-08	8.63E-07	3.43E-07	1.24
564370_4183370	564370	4183370	3.07E-03	2.82E-03	2.50E-03	0.00E+00	4.61E-03	7.92E-03	1.26E-03	2.66E-03	potential residence	4.16E-08	9.29E-07	3.77E-07	1.35
564390_4183370	564390	4183370	3.31E-03	3.04E-03	2.70E-03	0.00E+00	5.08E-03	8.73E-03	1.39E-03	2.93E-03	potential residence	4.49E-08	1.00E-06	4.16E-07	1.46
564410_4183370	564410	4183370	3.58E-03	3.29E-03	2.92E-03	0.00E+00	5.59E-03	9.61E-03	1.53E-03	3.22E-03	potential residence	4.86E-08	1.08E-06	4.57E-07	1.59
564250_4183390	564250	4183390	2.06E-03	1.89E-03	1.68E-03	0.00E+00	2.75E-03	4.73E-03	7.56E-04	1.59E-03	potential residence	2.80E-08	6.24E-07	2.27E-07	0.88
564270_4183390	564270	4183390	2.20E-03	2.02E-03	1.79E-03	0.00E+00	3.01E-03	5.17E-03	8.27E-04	1.74E-03	potential residence	2.99E-08	6.67E-07	2.47E-07	0.94
564290_4183390	564290	4183390	2.36E-03	2.17E-03	1.92E-03	0.00E+00	3.31E-03	5.68E-03	9.08E-04	1.91E-03	potential residence	3.20E-08	7.13E-07	2.72E-07	1.02
564310_4183390	564310	4183390	2.53E-03	2.32E-03	2.06E-03	0.00E+00	3.64E-03	6.26E-03	1.00E-03	2.10E-03	potential residence	3.43E-08	7.66E-07	2.99E-07	1.10
564330_4183390	564330	4183390	2.72E-03	2.50E-03	2.22E-03	0.00E+00	4.01E-03	6.90E-03	1.10E-03	2.31E-03	potential residence	3.69E-08	8.24E-07	3.29E-07	1.19
564350_4183390	564350	4183390	2.94E-03	2.69E-03	2.39E-03	0.00E+00	4.46E-03	7.66E-03	1.22E-03	2.57E-03	potential residence	3.98E-08	8.88E-07	3.65E-07	1.29
564370_4183390	564370	4183390	3.17E-03	2.91E-03	2.58E-03	0.00E+00	4.96E-03	8.52E-03	1.36E-03	2.86E-03	potential residence	4.30E-08	9.60E-07	4.06E-07	1.41
564690_4183390	564690	4183390	1.25E-02	1.15E-02	1.02E-02	0.00E+00	2.86E-02	4.91E-02	7.84E-03	1.65E-02	potential residence	1.69E-07	3.78E-06	2.31E-06	6.26
564710_4183390	564710	4183390	1.35E-02	1.24E-02	1.10E-02	0.00E+00	3.11E-02	5.35E-02	8.54E-03	1.80E-02	potential residence	1.83E-07	4.08E-06	2.52E-06	6.78
564250_4183410	564250	4183410	2.09E-03	1.92E-03	1.70E-03	0.00E+00	2.82E-03	4.85E-03	7.76E-04	1.63E-03	potential residence	2.83E-08	6.31E-07	2.32E-07	0.89
564270_4183410	564270	4183410	2.24E-03	2.05E-03	1.82E-03	0.00E+00	3.10E-03	5.33E-03	8.52E-04	1.79E-03	potential residence	3.03E-08	6.76E-07	2.55E-07	0.96
564290_4183410	564290	4183410	2.40E-03	2.20E-03	1.95E-03	0.00E+00	3.42E-03	5.87E-03	9.39E-04	1.97E-03	potential residence	3.25E-08	7.25E-07	2.81E-07	1.04
564310_4183410	564310	4183410	2.58E-03	2.36E-03	2.10E-03	0.00E+00	3.79E-03	6.51E-03	1.04E-03	2.18E-03	potential residence	3.50E-08	7.80E-07	3.10E-07	1.13
564330_4183410	564330	4183410	2.78E-03	2.55E-03	2.26E-03	0.00E+00	4.21E-03	7.24E-03	1.16E-03	2.43E-03	potential residence	3.78E-08	8.41E-07	3.45E-07	1.22
564570_4183410	564570	4183410	8.68E-03	7.99E-03	7.08E-03	0.00E+00	1.77E-02	3.04E-02	4.85E-03	1.02E-02	potential residence	1.18E-07	2.63E-06	1.43E-06	4.18
564590_4183410	564590	4183410	9.66E-03	8.89E-03	7.88E-03	0.00E+00	1.99E-02	3.42E-02	5.46E-03	1.15E-02	potential residence	1.31E-07	2.93E-06	1.61E-06	4.67
564690_4183410	564690	4183410	1.53E-02	1.41E-02	1.25E-02	0.00E+00	4.05E-02	6.96E-02	1.11E-02	2.34E-02	potential residence	2.08E-07	4.64E-06	3.26E-06	8.11
564710_4183410	564710	4183410	1.67E-02	1.54E-02	1.36E-02	0.00E+00	4.25E-02	7.30E-02	1.17E-02	2.45E-02	potential residence	2.27E-07	5.06E-06	3.43E-06	8.72
564230_4183430	564230	4183430	1.97E-03	1.81E-03	1.60E-03	0.00E+00	2.62E-03	4.50E-03	7.20E-04	1.51E-03	potential residence	2.67E-08	5.96E-07	2.16E-07	0.84
564250_4183430	564250	4183430	2.11E-03	1.93E-03	1.71E-03	0.00E+00	2.87E-03	4.94E-03	7.90E-04	1.66E-03	potential residence	2.86E-08	6.37E-07	2.36E-07	0.90
564270_4183430	564270	4183430	2.26E-03	2.07E-03	1.84E-03	0.00E+00	3.17E-03	5.44E-03	8.70E-04	1.83E-03	potential residence	3.07E-08	6.83E-07	2.60E-07	0.97
564290_4183430	564290	4183430	2.43E-03	2.23E-03	1.98E-03	0.00E+00	3.51E-03	6.03E-03	9.64E-04	2.02E-03	potential residence	3.30E-08	7.34E-07	2.88E-07	1.05
564550_4183430	564550	4183430	8.52E-03	7.84E-03	6.95E-03	0.00E+00	2.09E-02	3.58E-02	5.72E-03	1.20E-02	potential residence	1.16E-07	2.58E-06	1.68E-06	4.38

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	∑R1*C_{DPM} 3rd Trimester	0<2	2<16	Total
564570_4183430	564570	4183430	9.67E-03	8.89E-03	7.89E-03	0.00E+00	2.40E-02	4.12E-02	6.58E-03	1.38E-02	potential residence	1.31E-07	2.93E-06	1.94E-06	4.99
564590_4183430	564590	4183430	1.10E-02	1.01E-02	8.94E-03	0.00E+00	2.79E-02	4.80E-02	7.67E-03	1.61E-02	potential residence	1.49E-07	3.32E-06	2.25E-06	5.72
564630_4183430	564630	4183430	1.39E-02	1.28E-02	1.14E-02	0.00E+00	3.94E-02	6.76E-02	1.08E-02	2.27E-02	potential residence	1.89E-07	4.22E-06	3.17E-06	7.57
564650_4183430	564650	4183430	1.55E-02	1.43E-02	1.27E-02	0.00E+00	4.70E-02	8.07E-02	1.29E-02	2.71E-02	potential residence	2.10E-07	4.70E-06	3.78E-06	8.69
564730_4183430	564730	4183430	2.40E-02	2.20E-02	1.96E-02	0.00E+00	5.54E-02	9.52E-02	1.52E-02	3.20E-02	potential residence	3.26E-07	7.26E-06	4.48E-06	12.07
564230_4183450	564230	4183450	1.98E-03	1.82E-03	1.61E-03	0.00E+00	2.64E-03	4.54E-03	7.27E-04	1.52E-03	potential residence	2.69E-08	5.99E-07	2.18E-07	0.84
564250_4183450	564250	4183450	2.13E-03	1.94E-03	1.72E-03	0.00E+00	2.91E-03	5.00E-03	7.99E-04	1.68E-03	potential residence	2.88E-08	6.41E-07	2.39E-07	0.91
564570_4183450	564570	4183450	1.06E-02	9.75E-03	8.64E-03	0.00E+00	3.36E-02	5.78E-02	9.23E-03	1.94E-02	potential residence	1.44E-07	3.21E-06	2.70E-06	6.06
564590_4183450	564590	4183450	1.23E-02	1.13E-02	1.00E-02	0.00E+00	4.11E-02	7.06E-02	1.13E-02	2.37E-02	potential residence	1.66E-07	3.71E-06	3.30E-06	7.18
564610_4183450	564610	4183450	1.42E-02	1.31E-02	1.16E-02	0.00E+00	5.07E-02	8.71E-02	1.39E-02	2.93E-02	potential residence	1.93E-07	4.31E-06	4.07E-06	8.57
564690_4183450	564690	4183450	2.47E-02	2.27E-02	2.01E-02	0.00E+00	8.44E-02	1.45E-01	2.31E-02	4.87E-02	potential residence	3.35E-07	7.47E-06	6.77E-06	14.58
564710_4183450	564710	4183450	2.81E-02	2.58E-02	2.29E-02	0.00E+00	7.78E-02	1.34E-01	2.14E-02	4.49E-02	potential residence	3.81E-07	8.50E-06	6.27E-06	15.15
564730_4183450	564730	4183450	3.22E-02	2.97E-02	2.63E-02	0.00E+00	6.95E-02	1.19E-01	1.91E-02	4.01E-02	potential residence	4.37E-07	9.77E-06	5.63E-06	15.84
564450_4183470	564450	4183470	5.12E-03	4.68E-03	4.15E-03	0.00E+00	1.20E-02	2.05E-02	3.28E-03	6.90E-03	potential residence	6.94E-08	1.54E-06	9.67E-07	2.58
564470_4183470	564470	4183470	5.72E-03	5.24E-03	4.65E-03	0.00E+00	1.48E-02	2.54E-02	4.05E-03	8.52E-03	potential residence	7.76E-08	1.73E-06	1.19E-06	3.00
564490_4183470	564490	4183470	6.46E-03	5.92E-03	5.25E-03	0.00E+00	1.86E-02	3.20E-02	5.11E-03	1.07E-02	potential residence	8.76E-08	1.95E-06	1.50E-06	3.54
564530_4183470	564530	4183470	8.44E-03	7.75E-03	6.87E-03	0.00E+00	2.98E-02	5.13E-02	8.18E-03	1.72E-02	potential residence	1.14E-07	2.55E-06	2.39E-06	5.06
564550_4183470	564550	4183470	9.78E-03	8.98E-03	7.97E-03	0.00E+00	3.78E-02	6.49E-02	1.04E-02	2.18E-02	potential residence	1.33E-07	2.96E-06	3.03E-06	6.12
564570_4183470	564570	4183470	1.15E-02	1.05E-02	9.34E-03	0.00E+00	4.92E-02	8.45E-02	1.35E-02	2.84E-02	potential residence	1.55E-07	3.47E-06	3.93E-06	7.55
564590_4183470	564590	4183470	1.36E-02	1.25E-02	1.11E-02	0.00E+00	6.61E-02	1.14E-01	1.81E-02	3.81E-02	potential residence	1.85E-07	4.12E-06	5.28E-06	9.58
564650_4183470	564650	4183470	2.32E-02	2.13E-02	1.89E-02	0.00E+00	1.40E-01	2.40E-01	3.83E-02	8.06E-02	potential residence	3.15E-07	7.03E-06	1.11E-05	18.46
564670_4183470	564670	4183470	2.73E-02	2.51E-02	2.23E-02	0.00E+00	1.34E-01	2.30E-01	3.67E-02	7.72E-02	potential residence	3.70E-07	8.27E-06	1.07E-05	19.32
564690_4183470	564690	4183470	3.23E-02	2.97E-02	2.64E-02	0.00E+00	1.18E-01	2.03E-01	3.24E-02	6.81E-02	potential residence	4.38E-07	9.79E-06	9.46E-06	19.68
564710_4183470	564710	4183470	3.84E-02	3.54E-02	3.14E-02	0.00E+00	1.00E-01	1.72E-01	2.75E-02	5.79E-02	potential residence	5.21E-07	1.16E-05	8.09E-06	20.25
564730_4183470	564730	4183470	4.64E-02	4.28E-02	3.79E-02	0.00E+00	8.42E-02	1.45E-01	2.31E-02	4.86E-02	potential residence	6.30E-07	1.41E-05	6.85E-06	21.56
564750_4183470	564750	4183470	5.73E-02	5.28E-02	4.68E-02	0.00E+00	7.08E-02	1.22E-01	1.94E-02	4.08E-02	potential residence	7.76E-07	1.74E-05	5.85E-06	23.99
564410_4183490	564410	4183490	4.23E-03	3.83E-03	3.40E-03	0.00E+00	8.43E-03	1.45E-02	2.32E-03	4.86E-03	potential residence	5.74E-08	1.27E-06	6.85E-07	2.01
564430_4183490	564430	4183490	4.66E-03	4.24E-03	3.76E-03	0.00E+00	1.02E-02	1.75E-02	2.80E-03	5.87E-03	potential residence	6.31E-08	1.40E-06	8.24E-07	2.29
564450_4183490	564450	4183490	5.18E-03	4.73E-03	4.20E-03	0.00E+00	1.26E-02	2.16E-02	3.45E-03	7.25E-03	potential residence	7.02E-08	1.56E-06	1.02E-06	2.65
564470_4183490	564470	4183490	5.81E-03	5.32E-03	4.72E-03	0.00E+00	1.59E-02	2.74E-02	4.37E-03	9.19E-03	potential residence	7.88E-08	1.75E-06	1.28E-06	3.12
564490_4183490	564490	4183490	6.58E-03	6.03E-03	5.35E-03	0.00E+00	2.08E-02	3.58E-02	5.72E-03	1.20E-02	potential residence	8.93E-08	1.99E-06	1.67E-06	3.75
564530_4183490	564530	4183490	8.76E-03	8.03E-03	7.13E-03	0.00E+00	3.86E-02	6.63E-02	1.06E-02	2.23E-02	potential residence	1.19E-07	2.65E-06	3.08E-06	5.85
564550_4183490	564550	4183490	1.03E-02	9.43E-03	8.37E-03	0.00E+00	5.31E-02	9.13E-02	1.46E-02	3.06E-02	potential residence	1.40E-07	3.11E-06	4.24E-06	7.49
564610_4183490	564610	4183490	1.83E-02	1.68E-02	1.49E-02	0.00E+00	5.35E-05	1.06E-04	2.71E-05	2.67E-05	Building C	2.49E-07	5.55E-06	8.74E-08	5.88
564630_4183490	564630	4183490	2.28E-02	2.10E-02	1.86E-02	0.00E+00	4.33E-05	8.55E-05	2.19E-05	2.16E-05	Building C	3.09E-07	6.91E-06	1.07E-07	7.33
564650_4183490	564650	4183490	2.81E-02	2.59E-02	2.30E-02	0.00E+00	2.27E-01	3.89E-01	6.21E-02	1.31E-01	potential residence	3.81E-07	8.52E-06	1.80E-05	26.91
564670_4183490	564670	4183490	3.48E-02	3.20E-02	2.84E-02	0.00E+00	1.92E-01	3.30E-01	5.27E-02	1.11E-01	potential residence	4.72E-07	1.05E-05	1.53E-05	26.34
564690_4183490	564690	4183490	4.34E-02	4.00E-02	3.55E-02	0.00E+00	1.54E-01	2.65E-01	4.23E-02	8.90E-02	potential residence	5.89E-07	1.32E-05	1.24E-05	26.12
564710_4183490	564710	4183490	5.55E-02	5.11E-02	4.53E-02	0.00E+00	1.22E-01	2.10E-01	3.35E-02	7.04E-02	potential residence	7.52E-07	1.68E-05	9.88E-06	27.46
564730_4183490	564730	4183490	7.31E-02	6.74E-02	5.98E-02	0.00E+00	9.69E-02	1.67E-01	2.66E-02	5.59E-02	potential residence	9.92E-07	2.22E-05	7.98E-06	31.15
564750_4183490	564750	4183490	9.76E-02	9.00E-02	7.98E-02	0.00E+00	7.86E-02	1.35E-01	2.16E-02	4.53E-02	potential residence	1.32E-06	2.96E-05	6.64E-06	37.59
564370_4183510	564370	4183510	3.44E-03	3.13E-03	2.78E-03	0.00E+00	6.02E-03	1.04E-02	1.66E-03	3.47E-03	potential residence	4.66E-08	1.03E-06	4.91E-07	1.57
564410_4183510	564410	4183510	4.24E-03	3.83E-03	3.40E-03	0.00E+00	8.46E-03	1.45E-02	2.33E-03	4.88E-03	potential residence	5.75E-08	1.27E-06	6.87E-07	2.01
564430_4183510	564430	4183510	4.66E-03	4.24E-03	3.76E-03	0.00E+00	1.03E-02	1.76E-02	2.82E-03	5.92E-03	potential residence	6.32E-08	1.40E-06	8.31E-07	2.29
564450_4183510	564450	4183510	5.19E-03	4.73E-03	4.20E-03	0.00E+00	1.28E-02	2.20E-02	3.51E-03	7.37E-03	potential residence	7.03E-08	1.56E-06	1.03E-06	2.67
564470_4183510	564470	4183510	5.83E-03	5.33E-03	4.73E-03	0.00E+00	1.65E-02	2.83E-02	4.52E-03	9.50E-03	potential residence	7.91E-08	1.76E-06	1.33E-06	3.16
564490_4183510	564490	4183510	6.66E-03	6.09E-03	5.40E-03	0.00E+00	2.23E-02	3.83E-02	6.12E-03	1.29E-02	potential residence	9.03E-08	2.01E-06	1.79E-06	3.89
564510_4183510	564510	4183510	7.69E-03	7.03E-03	6.24E-03	0.00E+00	3.20E-02	5.50E-02	8.79E-03	1.85E-02	potential residence	1.04E-07	2.32E-06	2.56E-06	4.99
564550_4183510	564550	4183510	1.07E-02	9.77E-03	8.67E-03	0.00E+00	7.61E-05	1.50E-04	3.85E-05	3.80E-05	Block 2	1.45E-07	3.23E-06	5.49E-08	3.43
564570_4183510	564570	4183510	1.29E-02	1.18E-02	1.05E-02	0.00E+00	5.26E-05	1.04E-04	2.66E-05	2.63E-05	Building D	1.75E-07	3.89E-06	6.26E-08	4.12
564590_4183510	564590	4183510	1.58E-02	1.45E-02	1.29E-02	0.00E+00	4.22E-05	8.34E-05	2.13E-05	2.11E-05	Building C	2.14E-07	4.78E-06	7.49E-08	5.07
564610_4183510	564610	4183510	2.00E-02	1.84E-02	1.63E-02	0.00E+00	3.59E-05	7.10E-05	1.82E-05	1.80E-05	Building C	2.71E-07	6.05E-06	9.33E-08	6.41
564630_4183510	564630	4183510	2.56E-02	2.35E-02	2.09E-02	0.00E+00	3.30E-05	6.52E-05	1.67E-05	1.65E-05	Building C	3.47E-07	7.75E-06	1.18E-07	8.21
564650_4183510	564650	4183510	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00E+00	0.00E+00	0.00E+00	0.00
564710_4183510	564710	4183510	8.71E-02	8.03E-02	7.12E-02	0.00E+00	1.34E-01	2.31E-01	3.69E-02	7.76E-02	potential residence	1.18E-06	2.64E-05	1.10E-05	38.59
564750_4183510	564750	4183510	1.91E-04	6.83E-05	7.05E-05	0.00E+00	8.18E-02	1.41E-01	2.25E-02	4.72E-02	Building B	2.58E-09	3.44E-08	6.46E-06	6.50
564770_4183510	564770	4183510	1.41E-04	5.07E-05	5.23E-05	0.00E+00	6.62E-02	1.14E-01	1.82E-02	3.82E-02	Building B	1.92E-09	2.55E-08	5.23E-06	5.26
564330_4183530	564330	4183530	2.84E-03	2.59E-03	2.30E-03	0.00E+00	4.44E-03	7.64E-03	1.22E-03	2.56E-03	potential residence	3.85E-08	8.56E-07	3.64E-07	1.26
564350_4183530	564350	4183530	3.09E-03	2.82E-03	2.50E-03	0.00E+00	5.08E-03	8.74E-03	1.40E-03	2.93E-03	potential residence	4.19E-08	9.32E-07	4.15E-07	1.39
564370_4183530	564370	4183530	3.38E-03	3.09E-03	2.74E-03	0.00E+00	5.88E-03	1.01E-02	1.62E-03	3.39E-03	potential residence	4.58E-08	1.02E-06	4.80E-07	1.54
564390_4183530	564390	4183530	3.73E-03	3.41E-03	3.02E-03	0.00E+00	6.92E-03	1.19E-02	1.90E-03	3.99E-03	potential residence	5.06E-08	1.12E-06	5.63E-07	1.74
564430_4183530	564430	4183530	4.63E-03	4.20E-03	3.73E-03	0.00E+00	1.01E-02	1.73E-02	2.77E-03	5.81E-03	potential residence	6.28E-08	1.39E-06	8.16E-07	2.27
564450_4183530	564450	4183530	5.16E-03	4.70E-03	4.17E-03	0.00E+00	1.26E-02	2.17E-02	3.46E-03	7.27E-03	potential residence	7.00E-08	1.55E-06	1.02E-06	2.64
564470_4183530	564470	4183530	5.84E-03	5.32E-03	4.73E-03	0.00E+00	1.64E-02	2.82E-02	4.51E-03	9.47E-03	potential residence	7.92E-08	1.76E-06	1.32E-06	3.16
564510_4183530	564510	4183530	7.79E-03	7.06E-03	6.27E-03	0.00E+00	3.31E-02	5.69E-02	9.10E-03	1.91E-02	potential residence	1.06E-07	2.34E-06	2.65E-06	5.09
564550_4183530	564550	4183530	1.07E-02	9.83E-03	8.72E-03	0.00E+00	4.07E-05	8.03E-05	2.05E-05	2.03E-05	Building D	1.46E-07	3.24E-06	5.19E-08	3.44
564570_4183530	564570	4183530	1.31E-02	1.20E-02	1.07E-02	0.00E+00	3.39E-05	6.69E-05	1.71E-05	1.69E-05	Building D	1.78E-07	3.97E-06	6.21E-08	4.21
564590_4183530	564590	4183530	1.63E-02	1.50E-02	1.33E-02	0.00E+00	3.10E-05	6.11E-05	1.56E-05	1.55E-05	Building C	2.21E-07	4.93E-06	7.61E-08	5.22
564610_4183530	564610	4183530	2.06E-02	1.90E-02	1.68E-02	0.00E+00	3.01E-05	5.95E-05	1.52E-05	1.50E-05	Building C	2.80E-07	6.25E-06	9.57E-08	6.62
564630_4183530	564630	4183530	2.69E-02	2.48E-02	2.20E-02	0.00E+00	3.09E-05	6.10E-05	1.56E-05	1.54E-05	Building C	3.65E-07	8.16E-06	1.24E-07	8.65
564650_4183530	564650	4183530	3.79E-02	3.49E-02	3.10E-02	0.00E+00	3.61E-05	7.13E-05	1.83E-05	1.80E-05	Building C	5.14E-07	1.15E-05	1.74E-07	12.18
564710_4183530	564710	4183530	1.83E-04	6.57E-05	6.78E-05	0.00E+00	1.28E-01	2.19E-01	3.50E-02	7.36E-02	Building B	2.49E-09	3.31E-08	1.01E-05	10.10
564730_4183530	564730	4183530	1.37E-04	4.91E-05	5.06E-05	0.00E+00	9.85E-02	1.69E-01	2.70E-02	5.68E-02	Building B	1.86E-09	2.47E-08	7.77E-06	7.80
564750_4183530	564750	4183530	1.09E-04	3.90E-05	4.02E-05	0.00E+00	7.79E-02	1.34E-01	2.14E-02	4.49E-02	Block 1	1.47E-09	1.96E-08	6.14E-06	6.17
564770_4183530	564770	4183530	8.92E-05	3.20E-05	3.30E-05	0.00E+00	6.32E-02	1.09E-01	1.73E-02	3.65E-02	Block 1	1.21E-09	1.61E-08	4.99E-06	5.01
564790_4183530	564790	4183530	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00E+00	0.00E+00	0.00E+00	0.00
564290_4183550	564290	4183550	2.39E-03	2.18E-03	1.93E-03	0.00E+00	3.40E-03	5.85E-03	9.36E-04	1.96E-03	potential residence	3.24E-08	7.19E-07	2.79E-07	1.03
564310_4183550	564310	4183550	2.57E-03	2.35E-03	2.08E-03	0.00E+00	3.81E-03	6.55E-03	1.05E-03	2.20E-03	potential residence	3.49E-08	7.75E-07	3.12E-07	1.12
564330_4183550	564330	4183550	2.78E-03	2.55E-03	2.26E-03	0.00E+00	4.30E-03	7.40E-03	1.18E-03	2.48E-03	potential residence	3.77E-08	8.40E-07	3.52E-07	1.23
564350_4183550	564350	4183550	3.03E-03	2.77E-03	2.46E-03	0.00E+00	4.91E-03	8.45E-03	1.35E-03	2.83E-03	potential residence	4.10E-08	9.14E-07	4.01E-07	1.36
564370_4183550	564370	4183550	3.31E-03	3.03E-03	2.69E-03	0.00E+00	5.68E-03	9.76E-03	1.56E-03	3.27E-03	potential residence	4.49E-08	9.99E-07	4.63E-07	1.51
564390_4183550	564390	4183550	3.65E-03	3.34E-03	2.96E-03	0.00E+00	6.66E-03	1.14E-02	1.83E-03	3.84E-03	potential residence	4.95E-08	1.10E-06	5.42E-07	1.69
564430_4183550	564430	4183550	4.57E-03	4.14E-03	3.68E-03	0.00E+00	9.69E-03	1.67E-02	2.67E-03	5.59E-03	potential residence	6.20E-08	1.37E-06	7.86E-07	2.22
564470_4183550	564470	4183550	5.84E-03	5.27E-03	4.68E-03	0.00E+00	1.57E-02	2.71E-02	4.33E-03	9.08E-03	potential residence	7.92E-08	1.75E-06	1.27E-06	3.09
564490_4183550	564490	4183550	6.56E-03	5.97E-03	5.30E-03	0.00E+00	2.13E-02	3.67E-02	5.86E-03	1.23E-02	potential residence	8.90E-08	1.97E-06	1.71E-06	3.78
564510_4183550	564510	4183550	7.51E-03	6.87E-03	6.10E-03	0.00E+00	3.10E-02	5.33E-02	8.52E-03	1.79E-02	potential residence	1.02E-07	2.27E-06	2.48E-06	4.85
564530_4183550	564530	4183550	8.79E-03	8.06E-03	7.15E-03	0.00E+00	4.97E-02	8.54E-02	1.36E-02	2.87E-02	potential residence	1.19E-07	2.66E-06	3.96E-06	6.74
564550_4183550	564550	4183550	1.04E-02	9.58E-03	8.50E-03	0.00E+00	2.74E-05	5.42E-05	1.39E-05	1.37E-05	Block 2	1.41E-07	3.16E-06	4.94E-08	3.35
564570_4183550	564570	4183550	1.28E-02	1.17E-02	1.04E-02	0.00E+00	2.65E-05	5.23E-05	1.34E-05	1.32E-05	Building D	1.73E-07	3.86E-06	5.99E-08	4.10
564590_4183550	564590	4183550	1.59E-02	1.46E-02	1.30E-02	0.00E+00	2.78E-05	5.48E-05	1.40E-05	1.39E-05	Building D	2.15E-07	4.81E-06	7.41E-08	5.10
564610_4183550	564610	4183550	2.02E-02	1.86E-02	1.65E-02	0.00E+00	3.28E-05	6.48E-05	1.66E-05	1.64E-05	Building C	2.74E-07	6.13E-06	9.42E-08	6.50
564630_4183550	564630	4183550	2.73E-02	2.51E-02	2.23E-02	0.00E+00	4.76E-05	9.39E-05	2.40E-05	2.38E-05	Block 2	3.70E-07	8.26E-06	1.27E-07	8.76
564690_4183550	564690	4183550	1.30E-04	4.66E-05	4.81E-05	0.00E+00	1.30E-01	2.23E-01	3.56E-02	7.48E-02	Block 1	1.76E-09	2.35E-08	1.02E-05	10.26
564710_4183550	564710	4183550	1.05E-04	3.75E-05	3.87E-05	0.00E+00	1.02E-01	1.76E-01	2.80E-02	5.89E-02	Building B	1.42E-09	1.89E-08	8.06E-06	8.08
564730_4183550	564730	4183550	8.78E-05	3.15E-05	3.25E-05	0.00E+00	8.25E-02	1.42E-01	2.26E-02	4.76E-02	Block 1	1.19E-09	1.59E-08	6.51E-06	6.53
564750_4183550	564750	4183550	7.44E-05	2.67E-05	2.75E-05	0.00E+00	6.73E-02	1.16E-01	1.85E-02	3.88E-02	Building A	1.01E-09	1.34E-08	5.31E-06	5.33
564770_4183550	564770	4183550	6.41E-05	2.30E-05	2.37E-05	0.00E+00	5.59E-02	9.60E-02	1.53E-02	3.22E-02	Building A	8.69E-10	1.16E-08	4.41E-06	4.42
564790_4183550	564790	4183550	5.68E-05	2.04E-05	2.10E-05	0.00E+00	4.76E-02	8.18E-02	1.31E-02	2.75E-02	Building A	7.70E-10	1.03E-08	3.76E-06	3.77
564250_4183570	564250	4183570	2.03E-03	1.85E-03	1.64E-03	0.00E+00	2.68E-03	4.61E-03	7.38E-04	1.54E-03	potential residence	2.75E-08	6.11E-07	2.21E-07	0.86
564270_4183570	564270	4183570	2.17E-03	1.98E-03	1.76E-03	0.00E+00	2.96E-03	5.08E-03	8.14E-04	1.71E-03	potential residence	2.94E-08	6.54E-07	2.43E-07	0.93
564290_4183570	564290	4183570	2.33E-03	2.13E-03	1.89E-03	0.00E+00	3.29E-03	5.65E-03	9.04E-04	1.90E-03	potential residence	3.16E-08	7.04E-07	2.70E-07	1.01
564310_4183570	564310	4183570	2.51E-03	2.30E-03	2.04E-03	0.00E+00	3.68E-03	6.32E-03	1.01E-03	2.12E-03	potential residence	3.41E-08	7.59E-07	3.02E-07	1.09
564330_4183570	564330	4183570	2.72E-03	2.49E-03	2.21E-03	0.00E+00	4.14E-03	7.12E-03	1.14E-03	2.39E-03	potential residence	3.69E-08	8.21E-07	3.39E-07	1.20
564350_4183570	564350	4183570	2.96E-03	2.71E-03	2.40E-03	0.00E+00	4.72E-03	8.12E-03	1.30E-03	2.72E-03	potential residence	4.01E-08	8.93E-07	3.86E-07	1.32
564370_4183570	564370	4183570	3.23E-03	2.96E-03	2.63E-03	0.00E+00	5.44E-03	9.35E-03	1.49E-03	3.14E-03	potential residence	4.38E-08	9.76E-07	4.44E-07	1.46
564390_4183570	564390	4183570	3.55E-03	3.26E-03	2.89E-03	0.00E+00	6.36E-03	1.09E-02	1.75E-03	3.67E-03	potential residence	4.82E-08	1.07E-06	5.18E-07	1.64
564430_4183570	564430	4183570	4.43E-03	4.03E-03	3.57E-03	0.00E+00	9.18E-03	1.58E-02	2.53E-03	5.30E-03	potential residence	6.00E-08	1.33E-06	7.45E-07	2.14
564450_4183570	564450	4183570	4.94E-03	4.50E-03	4.00E-03	0.00E+00	1.14E-02	1.96E-02	3.13E-03	6.57E-03	potential residence	6.70E-08	1.49E-06	9.21E-07	2.47
564470_4183570	564470	4183570	5.54E-03	5.06E-03	4.49E-03	0.00E+00	1.45E-02	2.50E-02	3.99E-03	8.39E-03	potential residence	7.51E-08	1.67E-06	1.17E-06	2.92
564490_4183570	564490	4183570	6.29E-03	5.76E-03	5.11E-03	0.00E+00	1.94E-02	3.34E-02	5.33E-03	1.12E-02	potential residence	8.53E-08	1.90E-06	1.56E-06	3.55

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

			Unmitigated								Receptor Type	∑R1*C_{DPM}			
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564510_4183570	564510	4183570	7.24E-03	6.64E-03	5.89E-03	0.00E+00	2.74E-02	4.71E-02	7.51E-03	1.58E-02	potential residence	9.82E-08	2.19E-06	2.19E-06	4.48
564530_4183570	564530	4183570	8.45E-03	7.77E-03	6.89E-03	0.00E+00	4.07E-02	7.00E-02	1.12E-02	2.35E-02	potential residence	1.15E-07	2.56E-06	3.25E-06	5.92
564550_4183570	564550	4183570	1.00E-02	9.23E-03	8.19E-03	0.00E+00	6.54E-02	1.12E-01	1.79E-02	3.77E-02	potential residence	1.36E-07	3.04E-06	5.21E-06	8.38
564570_4183570	564570	4183570	1.21E-02	1.12E-02	9.90E-03	0.00E+00	2.49E-05	4.92E-05	1.26E-05	1.24E-05	Building D	1.65E-07	3.68E-06	5.70E-08	3.90
564590_4183570	564590	4183570	1.51E-02	1.39E-02	1.23E-02	0.00E+00	4.14E-05	8.18E-05	2.09E-05	2.07E-05	Block 2	2.05E-07	4.58E-06	7.19E-08	4.85
564690_4183570	564690	4183570	8.11E-05	2.91E-05	3.00E-05	0.00E+00	8.57E-02	1.47E-01	2.35E-02	4.94E-02	Block 1	1.10E-09	1.47E-08	6.76E-06	6.78
564710_4183570	564710	4183570	6.84E-05	2.45E-05	2.53E-05	0.00E+00	7.13E-02	1.23E-01	1.96E-02	4.12E-02	Block 1	9.28E-10	1.24E-08	5.63E-06	5.64
564730_4183570	564730	4183570	6.12E-05	2.19E-05	2.27E-05	0.00E+00	6.17E-02	1.06E-01	1.69E-02	3.56E-02	Building A	8.30E-10	1.11E-08	4.87E-06	4.88
564750_4183570	564750	4183570	5.40E-05	1.94E-05	2.00E-05	0.00E+00	5.26E-02	9.04E-02	1.44E-02	3.04E-02	Building A	7.32E-10	9.75E-09	4.15E-06	4.16
564770_4183570	564770	4183570	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.55E-02	7.81E-02	1.25E-02	2.62E-02	Building A	6.55E-10	8.72E-09	3.59E-06	3.60
564230_4183590	564230	4183590	1.85E-03	1.69E-03	1.50E-03	0.00E+00	2.36E-03	4.06E-03	6.49E-04	1.36E-03	potential residence	2.51E-08	5.58E-07	1.95E-07	0.78
564250_4183590	564250	4183590	1.97E-03	1.81E-03	1.60E-03	0.00E+00	2.58E-03	4.44E-03	7.11E-04	1.49E-03	potential residence	2.68E-08	5.96E-07	2.13E-07	0.84
564270_4183590	564270	4183590	2.11E-03	1.93E-03	1.72E-03	0.00E+00	2.85E-03	4.90E-03	7.84E-04	1.64E-03	potential residence	2.87E-08	6.38E-07	2.34E-07	0.90
564290_4183590	564290	4183590	2.27E-03	2.08E-03	1.84E-03	0.00E+00	3.16E-03	5.43E-03	8.69E-04	1.82E-03	potential residence	3.08E-08	6.86E-07	2.60E-07	0.98
564310_4183590	564310	4183590	2.45E-03	2.24E-03	1.99E-03	0.00E+00	3.53E-03	6.07E-03	9.70E-04	2.04E-03	potential residence	3.32E-08	7.39E-07	2.90E-07	1.06
564330_4183590	564330	4183590	2.64E-03	2.43E-03	2.15E-03	0.00E+00	3.97E-03	6.83E-03	1.09E-03	2.29E-03	potential residence	3.59E-08	7.99E-07	3.25E-07	1.16
564350_4183590	564350	4183590	2.87E-03	2.64E-03	2.34E-03	0.00E+00	4.52E-03	7.76E-03	1.24E-03	2.60E-03	potential residence	3.90E-08	8.69E-07	3.69E-07	1.28
564370_4183590	564370	4183590	3.14E-03	2.88E-03	2.55E-03	0.00E+00	5.19E-03	8.92E-03	1.43E-03	2.99E-03	potential residence	4.26E-08	9.49E-07	4.24E-07	1.42
564390_4183590	564390	4183590	3.45E-03	3.16E-03	2.81E-03	0.00E+00	6.05E-03	1.04E-02	1.66E-03	3.49E-03	potential residence	4.67E-08	1.04E-06	4.93E-07	1.58
564410_4183590	564410	4183590	3.80E-03	3.49E-03	3.09E-03	0.00E+00	7.14E-03	1.23E-02	1.96E-03	4.12E-03	potential residence	5.16E-08	1.15E-06	5.81E-07	1.78
564430_4183590	564430	4183590	4.23E-03	3.88E-03	3.44E-03	0.00E+00	8.60E-03	1.48E-02	2.36E-03	4.96E-03	potential residence	5.73E-08	1.28E-06	6.98E-07	2.03
564450_4183590	564450	4183590	4.72E-03	4.33E-03	3.84E-03	0.00E+00	1.06E-02	1.82E-02	2.90E-03	6.10E-03	potential residence	6.40E-08	1.43E-06	8.56E-07	2.35
564470_4183590	564470	4183590	5.30E-03	4.86E-03	4.31E-03	0.00E+00	1.33E-02	2.28E-02	3.65E-03	7.67E-03	potential residence	7.18E-08	1.60E-06	1.07E-06	2.75
564490_4183590	564490	4183590	6.02E-03	5.53E-03	4.91E-03	0.00E+00	1.73E-02	2.98E-02	4.75E-03	9.99E-03	potential residence	8.17E-08	1.82E-06	1.39E-06	3.30
564510_4183590	564510	4183590	6.91E-03	6.35E-03	5.63E-03	0.00E+00	2.31E-02	3.97E-02	6.35E-03	1.33E-02	potential residence	9.37E-08	2.09E-06	1.86E-06	4.04
564530_4183590	564530	4183590	8.07E-03	7.42E-03	6.58E-03	0.00E+00	3.18E-02	5.46E-02	8.72E-03	1.83E-02	potential residence	1.09E-07	2.44E-06	2.55E-06	5.10
564710_4183590	564710	4183590	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.84E-02	8.31E-02	1.33E-02	2.79E-02	Block 1	6.55E-10	8.72E-09	3.82E-06	3.83
564730_4183590	564730	4183590	4.42E-05	1.58E-05	1.64E-05	0.00E+00	4.34E-02	7.46E-02	1.19E-02	2.51E-02	Building A	5.99E-10	7.98E-09	3.43E-06	3.44
564230_4183610	564230	4183610	1.80E-03	1.65E-03	1.46E-03	0.00E+00	2.28E-03	3.92E-03	6.26E-04	1.31E-03	potential residence	2.44E-08	5.44E-07	1.88E-07	0.76
564250_4183610	564250	4183610	1.92E-03	1.76E-03	1.56E-03	0.00E+00	2.49E-03	4.28E-03	6.85E-04	1.44E-03	potential residence	2.60E-08	5.80E-07	2.05E-07	0.81
564270_4183610	564270	4183610	2.05E-03	1.88E-03	1.67E-03	0.00E+00	2.74E-03	4.71E-03	7.53E-04	1.58E-03	potential residence	2.78E-08	6.21E-07	2.26E-07	0.87
564290_4183610	564290	4183610	2.20E-03	2.02E-03	1.79E-03	0.00E+00	3.04E-03	5.22E-03	8.34E-04	1.75E-03	potential residence	2.99E-08	6.67E-07	2.50E-07	0.95
564310_4183610	564310	4183610	2.37E-03	2.18E-03	1.93E-03	0.00E+00	3.39E-03	5.82E-03	9.30E-04	1.95E-03	potential residence	3.22E-08	7.18E-07	2.78E-07	1.03
564330_4183610	564330	4183610	2.57E-03	2.36E-03	2.09E-03	0.00E+00	3.80E-03	6.54E-03	1.04E-03	2.19E-03	potential residence	3.48E-08	7.77E-07	3.12E-07	1.12
564350_4183610	564350	4183610	2.79E-03	2.56E-03	2.27E-03	0.00E+00	4.31E-03	7.41E-03	1.18E-03	2.49E-03	potential residence	3.78E-08	8.43E-07	3.53E-07	1.23
564370_4183610	564370	4183610	3.04E-03	2.79E-03	2.47E-03	0.00E+00	4.93E-03	8.48E-03	1.35E-03	2.85E-03	potential residence	4.12E-08	9.19E-07	4.03E-07	1.36
564390_4183610	564390	4183610	3.32E-03	3.05E-03	2.71E-03	0.00E+00	5.71E-03	9.81E-03	1.57E-03	3.29E-03	potential residence	4.50E-08	1.01E-06	4.65E-07	1.52
564410_4183610	564410	4183610	3.65E-03	3.36E-03	2.98E-03	0.00E+00	6.69E-03	1.15E-02	1.84E-03	3.86E-03	potential residence	4.95E-08	1.11E-06	5.44E-07	1.70
564430_4183610	564430	4183610	4.05E-03	3.72E-03	3.30E-03	0.00E+00	8.01E-03	1.38E-02	2.20E-03	4.62E-03	potential residence	5.50E-08	1.23E-06	6.51E-07	1.93
564450_4183610	564450	4183610	4.53E-03	4.16E-03	3.69E-03	0.00E+00	9.77E-03	1.68E-02	2.68E-03	5.64E-03	potential residence	6.14E-08	1.37E-06	7.92E-07	2.22
564470_4183610	564470	4183610	5.07E-03	4.66E-03	4.14E-03	0.00E+00	1.20E-02	2.07E-02	3.30E-03	6.95E-03	potential residence	6.88E-08	1.54E-06	9.73E-07	2.58
564490_4183610	564490	4183610	5.76E-03	5.30E-03	4.70E-03	0.00E+00	1.52E-02	2.61E-02	4.17E-03	8.77E-03	potential residence	7.81E-08	1.74E-06	1.23E-06	3.05
564510_4183610	564510	4183610	6.60E-03	6.07E-03	5.38E-03	0.00E+00	1.93E-02	3.32E-02	5.29E-03	1.11E-02	potential residence	8.95E-08	2.00E-06	1.55E-06	3.64
564750_4183610	564750	4183610	1.11E-01	1.02E-01	9.07E-02	0.00E+00	2.80E-02	4.81E-02	7.69E-03	1.62E-02	potential residence	1.50E-06	3.37E-05	2.71E-06	37.87
564770_4183610	564770	4183610	1.08E-01	9.97E-02	8.84E-02	0.00E+00	2.59E-02	4.45E-02	7.10E-03	1.49E-02	potential residence	1.47E-06	3.28E-05	2.53E-06	36.79
564830_4183610	564830	4183610	8.38E-02	7.73E-02	6.86E-02	0.00E+00	2.05E-02	3.52E-02	5.62E-03	1.18E-02	potential residence	1.14E-06	2.54E-05	1.99E-06	28.57
564250_4183630	564250	4183630	1.87E-03	1.71E-03	1.52E-03	0.00E+00	2.40E-03	4.13E-03	6.60E-04	1.39E-03	potential residence	2.53E-08	5.64E-07	1.98E-07	0.79
564270_4183630	564270	4183630	1.99E-03	1.83E-03	1.62E-03	0.00E+00	2.64E-03	4.54E-03	7.26E-04	1.52E-03	potential residence	2.71E-08	6.03E-07	2.17E-07	0.85
564290_4183630	564290	4183630	2.14E-03	1.97E-03	1.74E-03	0.00E+00	2.92E-03	5.02E-03	8.02E-04	1.69E-03	potential residence	2.90E-08	6.48E-07	2.40E-07	0.92
564310_4183630	564310	4183630	2.30E-03	2.12E-03	1.88E-03	0.00E+00	3.25E-03	5.59E-03	8.93E-04	1.88E-03	potential residence	3.12E-08	6.97E-07	2.67E-07	1.00
564330_4183630	564330	4183630	2.49E-03	2.29E-03	2.03E-03	0.00E+00	3.65E-03	6.27E-03	1.00E-03	2.10E-03	potential residence	3.37E-08	7.53E-07	2.99E-07	1.09
564350_4183630	564350	4183630	2.69E-03	2.47E-03	2.19E-03	0.00E+00	4.11E-03	7.06E-03	1.13E-03	2.37E-03	potential residence	3.65E-08	8.14E-07	3.36E-07	1.19
564370_4183630	564370	4183630	2.93E-03	2.69E-03	2.39E-03	0.00E+00	4.68E-03	8.05E-03	1.29E-03	2.70E-03	potential residence	3.97E-08	8.86E-07	3.83E-07	1.31
564390_4183630	564390	4183630	3.20E-03	2.94E-03	2.61E-03	0.00E+00	5.41E-03	9.29E-03	1.48E-03	3.12E-03	potential residence	4.34E-08	9.69E-07	4.41E-07	1.45
564410_4183630	564410	4183630	3.40E-03	3.12E-03	2.77E-03	0.00E+00	6.28E-03	1.08E-02	1.72E-03	3.62E-03	potential residence	4.61E-08	1.03E-06	5.11E-07	1.59
564430_4183630	564430	4183630	3.76E-03	3.46E-03	3.07E-03	0.00E+00	7.45E-03	1.28E-02	2.04E-03	4.30E-03	potential residence	5.10E-08	1.14E-06	6.05E-07	1.79
564450_4183630	564450	4183630	4.33E-03	3.99E-03	3.54E-03	0.00E+00	8.95E-03	1.54E-02	2.45E-03	5.16E-03	potential residence	5.88E-08	1.31E-06	7.26E-07	2.10
564470_4183630	564470	4183630	4.86E-03	4.47E-03	3.97E-03	0.00E+00	1.08E-02	1.86E-02	2.96E-03	6.23E-03	potential residence	6.59E-08	1.47E-06	8.75E-07	2.41
564690_4183630	564690	4183630	3.83E-02	3.53E-02	3.13E-02	0.00E+00	2.45E-02	4.21E-02	6.72E-03	1.41E-02	potential residence	5.19E-07	1.16E-05	2.11E-06	14.25
564750_4183630	564750	4183630	5.94E-02	5.48E-02	4.86E-02	0.00E+00	2.05E-02	3.53E-02	5.63E-03	1.18E-02	potential residence	8.05E-07	1.80E-05	1.89E-06	20.71
564770_4183630	564770	4183630	6.06E-02	5.59E-02	4.96E-02	0.00E+00	1.93E-02	3.32E-02	5.29E-03	1.11E-02	potential residence	8.22E-07	1.84E-05	1.80E-06	21.00
564790_4183630	564790	4183630	6.00E-02	5.53E-02	4.91E-02	0.00E+00	1.82E-02	3.13E-02	5.00E-03	1.05E-02	potential residence	8.13E-07	1.82E-05	1.71E-06	20.73
564810_4183630	564810	4183630	5.77E-02	5.33E-02	4.72E-02	0.00E+00	1.72E-02	2.96E-02	4.72E-03	9.93E-03	potential residence	7.83E-07	1.75E-05	1.62E-06	19.92
564830_4183630	564830	4183630	5.43E-02	5.01E-02	4.44E-02	0.00E+00	1.62E-02	2.79E-02	4.45E-03	9.36E-03	potential residence	7.36E-07	1.65E-05	1.53E-06	18.73
564890_4183630	564890	4183630	4.10E-02	3.78E-02	3.35E-02	0.00E+00	1.33E-02	2.29E-02	3.66E-03	7.70E-03	potential residence	5.56E-07	1.24E-05	1.24E-06	14.24
564910_4183630	564910	4183630	3.73E-02	3.44E-02	3.05E-02	0.00E+00	1.25E-02	2.15E-02	3.43E-03	7.22E-03	potential residence	5.05E-07	1.13E-05	1.16E-06	12.97
564250_4183650	564250	4183650	1.81E-03	1.67E-03	1.48E-03	0.00E+00	2.32E-03	3.99E-03	6.38E-04	1.34E-03	potential residence	2.46E-08	5.49E-07	1.91E-07	0.76
564270_4183650	564270	4183650	1.94E-03	1.78E-03	1.58E-03	0.00E+00	2.55E-03	4.38E-03	6.99E-04	1.47E-03	potential residence	2.63E-08	5.86E-07	2.10E-07	0.82
564290_4183650	564290	4183650	2.07E-03	1.91E-03	1.69E-03	0.00E+00	2.81E-03	4.82E-03	7.71E-04	1.62E-03	potential residence	2.81E-08	6.28E-07	2.31E-07	0.89
564310_4183650	564310	4183650	2.23E-03	2.05E-03	1.82E-03	0.00E+00	3.12E-03	5.36E-03	8.56E-04	1.80E-03	potential residence	3.02E-08	6.75E-07	2.56E-07	0.96
564330_4183650	564330	4183650	2.41E-03	2.21E-03	1.96E-03	0.00E+00	3.50E-03	6.01E-03	9.60E-04	2.02E-03	potential residence	3.26E-08	7.29E-07	2.87E-07	1.05
564350_4183650	564350	4183650	2.60E-03	2.39E-03	2.12E-03	0.00E+00	3.93E-03	6.75E-03	1.08E-03	2.27E-03	potential residence	3.53E-08	7.88E-07	3.22E-07	1.14
564370_4183650	564370	4183650	2.73E-03	2.51E-03	2.23E-03	0.00E+00	4.45E-03	7.64E-03	1.22E-03	2.57E-03	potential residence	3.71E-08	8.28E-07	3.63E-07	1.23
564390_4183650	564390	4183650	2.99E-03	2.75E-03	2.44E-03	0.00E+00	5.12E-03	8.79E-03	1.40E-03	2.95E-03	potential residence	4.06E-08	9.06E-07	4.17E-07	1.36
564410_4183650	564410	4183650	3.28E-03	3.02E-03	2.67E-03	0.00E+00	5.92E-03	1.02E-02	1.63E-03	3.42E-03	potential residence	4.44E-08	9.93E-07	4.82E-07	1.52
564430_4183650	564430	4183650	3.61E-03	3.33E-03	2.95E-03	0.00E+00	6.92E-03	1.19E-02	1.90E-03	3.99E-03	potential residence	4.90E-08	1.10E-06	5.63E-07	1.71
564450_4183650	564450	4183650	4.01E-03	3.69E-03	3.27E-03	0.00E+00	8.13E-03	1.40E-02	2.23E-03	4.69E-03	potential residence	5.44E-08	1.22E-06	6.60E-07	1.93
564670_4183650	564670	4183650	2.34E-02	2.16E-02	1.91E-02	0.00E+00	1.83E-02	3.14E-02	5.02E-03	1.06E-02	potential residence	3.17E-07	7.10E-06	1.55E-06	8.97
564690_4183650	564690	4183650	2.74E-02	2.53E-02	2.24E-02	0.00E+00	1.77E-02	3.05E-02	4.86E-03	1.02E-02	potential residence	3.71E-07	8.31E-06	1.52E-06	10.20
564710_4183650	564710	4183650	3.26E-02	3.01E-02	2.66E-02	0.00E+00	1.71E-02	2.93E-02	4.68E-03	9.85E-03	potential residence	4.42E-07	9.89E-06	1.49E-06	11.82
564730_4183650	564730	4183650	3.54E-02	3.26E-02	2.89E-02	0.00E+00	1.62E-02	2.79E-02	4.46E-03	9.37E-03	potential residence	4.80E-07	1.07E-05	1.44E-06	12.65
564750_4183650	564750	4183650	3.74E-02	3.45E-02	3.06E-02	0.00E+00	1.54E-02	2.65E-02	4.23E-03	8.90E-03	potential residence	5.07E-07	1.13E-05	1.39E-06	13.23
564770_4183650	564770	4183650	3.86E-02	3.56E-02	3.15E-02	0.00E+00	1.47E-02	2.53E-02	4.04E-03	8.50E-03	potential residence	5.23E-07	1.17E-05	1.34E-06	13.57
564790_4183650	564790	4183650	3.87E-02	3.57E-02	3.17E-02	0.00E+00	1.41E-02	2.42E-02	3.86E-03	8.13E-03	potential residence	5.25E-07	1.18E-05	1.29E-06	13.57
564810_4183650	564810	4183650	3.80E-02	3.50E-02	3.10E-02	0.00E+00	1.34E-02	2.31E-02	3.69E-03	7.76E-03	potential residence	5.15E-07	1.15E-05	1.23E-06	13.27
564830_4183650	564830	4183650	3.65E-02	3.37E-02	2.99E-02	0.00E+00	1.28E-02	2.20E-02	3.52E-03	7.40E-03	potential residence	4.95E-07	1.11E-05	1.18E-06	12.76
564850_4183650	564850	4183650	3.45E-02	3.18E-02	2.82E-02	0.00E+00	1.22E-02	2.10E-02	3.35E-03	7.04E-03	potential residence	4.68E-07	1.05E-05	1.12E-06	12.05
564870_4183650	564870	4183650	3.24E-02	2.98E-02	2.65E-02	0.00E+00	1.16E-02	2.00E-02	3.18E-03	6.70E-03	potential residence	4.39E-07	9.82E-06	1.06E-06	11.32
564890_4183650	564890	4183650	3.00E-02	2.76E-02	2.45E-02	0.00E+00	1.10E-02	1.89E-02	3.01E-03	6.34E-03	potential residence	4.06E-07	9.09E-06	1.00E-06	10.50
564910_4183650	564910	4183650	2.79E-02	2.57E-02	2.28E-02	0.00E+00	1.03E-02	1.77E-02	2.83E-03	5.94E-03	potential residence	3.78E-07	8.47E-06	9.39E-07	9.79
564270_4183670	564270	4183670	1.83E-03	1.69E-03	1.49E-03	0.00E+00	2.45E-03	4.22E-03	6.74E-04	1.42E-03	potential residence	2.49E-08	5.55E-07	2.02E-07	0.78
564290_4183670	564290	4183670	1.96E-03	1.80E-03	1.60E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	potential residence	2.66E-08	5.93E-07	2.22E-07	0.84
564310_4183670	564310	4183670	2.16E-03	1.99E-03	1.76E-03	0.00E+00	3.00E-03	5.16E-03	8.23E-04	1.73E-03	potential residence	2.93E-08	6.54E-07	2.47E-07	0.93
564330_4183670	564330	4183670	2.26E-03	2.08E-03	1.85E-03	0.00E+00	3.35E-03	5.75E-03	9.19E-04	1.93E-03	potential residence	3.07E-08	6.86E-07	2.74E-07	0.99
564350_4183670	564350	4183670	2.45E-03	2.25E-03	2.00E-03	0.00E+00	3.76E-03	6.46E-03	1.03E-03	2.17E-03	potential residence	3.32E-08	7.41E-07	3.08E-07	1.08
564370_4183670	564370	4183670	2.64E-03	2.43E-03	2.16E-03	0.00E+00	4.24E-03	7.29E-03	1.16E-03	2.45E-03	potential residence	3.58E-08	8.01E-07	3.47E-07	1.18
564390_4183670	564390	4183670	2.88E-03	2.65E-03	2.35E-03	0.00E+00	4.84E-03	8.31E-03	1.33E-03	2.79E-03	potential residence	3.91E-08	8.74E-07	3.95E-07	1.31
564410_4183670	564410	4183670	3.15E-03	2.90E-03	2.58E-03	0.00E+00	5.54E-03	9.51E-03	1.52E-03	3.19E-03	potential residence	4.28E-08	9.56E-07	4.51E-07	1.45
564430_4183670	564430	4183670	3.47E-03	3.20E-03	2.83E-03	0.00E+00	6.36E-03	1.09E-02	1.74E-03	3.67E-03	potential residence	4.71E-08	1.05E-06	5.17E-07	1.62
564450_4183670	564450	4183670	3.84E-03	3.53E-03	3.13E-03	0.00E+00	7.29E-03	1.25E-02	2.00E-03	4.21E-03	potential residence	5.20E-08	1.16E-06	5.93E-07	1.81
564470_4183670	564470	4183670	4.29E-03	3.95E-03	3.50E-03	0.00E+00	8.33E-03	1.43E-02	2.29E-03	4.81E-03	potential residence	5.81E-08	1.30E-06	6.77E-07	2.03
564650_4183670	564650	4183670	1.60E-02	1.47E-02	1.30E-02	0.00E+00	1.34E-02	2.30E-02	3.68E-03	7.73E-03	potential residence	2.16E-07	4.84E-06	1.13E-06	6.19
564670_4183670	564670	4183670	1.83E-02	1.69E-02	1.50E-02	0.00E+00	1.37E-02	2.36E-02	3.76E-03	7.92E-03	potential residence	2.48E-07	5.55E-06	1.17E-06	6.96
564730_4183670	564730	4183670	2.47E-02	2.28E-02	2.02E-02	0.00E+00	1.25E-02	2.16E-02	3.44E-03	7.24E-03	potential residence	3.36E-07	7.51E-06	1.10E-06	8.95
564750_4183670	564750	4183670	2.57E-02	2.38E-02	2.11E-02	0.00E+00	1.20E-02	2.06E-02	3.29E-03	6.92E-03	potential residence	3.49E-07	7.81E-06	1.06E-06	9.23
564770_4183670	564770	4183670	2.66E-02	2.46E-02	2.18E-02	0.00E+00	1.16E-02	1.99E-02	3.17E-03	6.67E-03	potential residence	3.61E-07	8.09E-06	1.03E-06	9.48
564790_4183670	564790	4183670	2.68E-02	2.47E-02	2.19E-02	0.00E+00	1.11E-02	1.91E-02	3.04E-03	6.40E-03	potential residence	3.64E-07	8.14E-06	9.97E-07	9.50
564810_4183670	564810	4183670	2.66E-02	2.45E-02	2.18E-02	0.00E+00	1.07E-02	1.83E-02	2.93E-03	6.16E-03	potential residence	3.61E-07	8.07E-06	9.63E-07	9.40
564830_4183670	564830	4183670	2.59E-02	2.39E-02	2.12E-02	0.00E+00	1.02E-02	1.76E-02	2.81E-03	5.91E-03	potential residence	3.51E-07	7.86E-06	9.26E-07	9.14
564850_4183670	564850	4183670	2.55E-02	2.36E-02	2.09E-02	0.00E+00	9.90E-03	1.70E-02	2.72E-03	5.71E-03	potential residence	3.46E-07	7.75E-06	8.97E-07	8.99

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

			Unmitigated								Receptor Type	∑R1*C_{DPM}			
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564870_4183670	564870	4183670	2.39E-02	2.21E-02	1.96E-02	0.00E+00	9.37E-03	1.61E-02	2.57E-03	5.40E-03	potential residence	3.25E-07	7.27E-06	8.47E-07	8.44
564890_4183670	564890	4183670	2.25E-02	2.08E-02	1.84E-02	0.00E+00	8.95E-03	1.54E-02	2.46E-03	5.17E-03	potential residence	3.06E-07	6.84E-06	8.09E-07	7.96
564910_4183670	564910	4183670	2.13E-02	1.97E-02	1.74E-02	0.00E+00	8.60E-03	1.48E-02	2.36E-03	4.96E-03	potential residence	2.89E-07	6.46E-06	7.75E-07	7.53
564930_4183670	564930	4183670	1.99E-02	1.83E-02	1.63E-02	0.00E+00	8.27E-03	1.42E-02	2.27E-03	4.77E-03	potential residence	2.70E-07	6.03E-06	7.43E-07	7.04
564270_4183690	564270	4183690	1.77E-03	1.63E-03	1.45E-03	0.00E+00	2.37E-03	4.07E-03	6.50E-04	1.37E-03	potential residence	2.40E-08	5.37E-07	1.95E-07	0.76
564290_4183690	564290	4183690	1.89E-03	1.74E-03	1.54E-03	0.00E+00	2.61E-03	4.48E-03	7.15E-04	1.50E-03	potential residence	2.57E-08	5.74E-07	2.14E-07	0.81
564310_4183690	564310	4183690	2.03E-03	1.87E-03	1.66E-03	0.00E+00	2.88E-03	4.96E-03	7.91E-04	1.66E-03	potential residence	2.76E-08	6.16E-07	2.37E-07	0.88
564330_4183690	564330	4183690	2.19E-03	2.01E-03	1.78E-03	0.00E+00	3.21E-03	5.51E-03	8.80E-04	1.85E-03	potential residence	2.96E-08	6.62E-07	2.63E-07	0.95
564350_4183690	564350	4183690	2.36E-03	2.17E-03	1.93E-03	0.00E+00	3.59E-03	6.16E-03	9.84E-04	2.07E-03	potential residence	3.20E-08	7.16E-07	2.94E-07	1.04
564370_4183690	564370	4183690	2.56E-03	2.35E-03	2.09E-03	0.00E+00	4.03E-03	6.92E-03	1.11E-03	2.32E-03	potential residence	3.47E-08	7.75E-07	3.29E-07	1.14
564390_4183690	564390	4183690	2.78E-03	2.56E-03	2.27E-03	0.00E+00	4.54E-03	7.80E-03	1.24E-03	2.62E-03	potential residence	3.77E-08	8.43E-07	3.71E-07	1.25
564410_4183690	564410	4183690	3.04E-03	2.80E-03	2.48E-03	0.00E+00	5.12E-03	8.80E-03	1.41E-03	2.96E-03	potential residence	4.12E-08	9.21E-07	4.18E-07	1.38
564430_4183690	564430	4183690	3.33E-03	3.06E-03	2.72E-03	0.00E+00	5.59E-03	9.61E-03	1.53E-03	3.23E-03	potential residence	4.51E-08	1.01E-06	4.56E-07	1.51
564450_4183690	564450	4183690	3.67E-03	3.38E-03	3.00E-03	0.00E+00	6.26E-03	1.08E-02	1.72E-03	3.61E-03	potential residence	4.98E-08	1.11E-06	5.11E-07	1.67
564470_4183690	564470	4183690	4.10E-03	3.78E-03	3.35E-03	0.00E+00	7.19E-03	1.24E-02	1.97E-03	4.15E-03	potential residence	5.57E-08	1.24E-06	5.86E-07	1.89
564570_4183690	564570	4183690	7.81E-03	7.20E-03	6.38E-03	0.00E+00	9.62E-03	1.65E-02	2.64E-03	5.55E-03	potential residence	1.06E-07	2.37E-06	7.94E-07	3.27
564590_4183690	564590	4183690	8.97E-03	8.27E-03	7.33E-03	0.00E+00	9.86E-03	1.69E-02	2.70E-03	5.69E-03	potential residence	1.22E-07	2.72E-06	8.18E-07	3.66
564650_4183690	564650	4183690	1.31E-02	1.21E-02	1.07E-02	0.00E+00	1.03E-02	1.77E-02	2.83E-03	5.95E-03	potential residence	1.77E-07	3.97E-06	8.72E-07	5.02
564670_4183690	564670	4183690	1.44E-02	1.33E-02	1.17E-02	0.00E+00	1.03E-02	1.77E-02	2.83E-03	5.95E-03	potential residence	1.95E-07	4.36E-06	8.78E-07	5.43
564730_4183690	564730	4183690	1.84E-02	1.69E-02	1.50E-02	0.00E+00	1.00E-02	1.72E-02	2.75E-03	5.77E-03	potential residence	2.49E-07	5.57E-06	8.73E-07	6.70
564750_4183690	564750	4183690	1.89E-02	1.74E-02	1.54E-02	0.00E+00	9.61E-03	1.65E-02	2.63E-03	5.54E-03	potential residence	2.56E-07	5.72E-06	8.43E-07	6.82
564770_4183690	564770	4183690	1.94E-02	1.79E-02	1.58E-02	0.00E+00	9.28E-03	1.59E-02	2.55E-03	5.35E-03	potential residence	2.63E-07	5.88E-06	8.20E-07	6.96
564790_4183690	564790	4183690	1.95E-02	1.80E-02	1.60E-02	0.00E+00	8.93E-03	1.53E-02	2.45E-03	5.15E-03	potential residence	2.65E-07	5.92E-06	7.93E-07	6.98
564810_4183690	564810	4183690	1.94E-02	1.79E-02	1.58E-02	0.00E+00	8.58E-03	1.48E-02	2.35E-03	4.95E-03	potential residence	2.63E-07	5.88E-06	7.65E-07	6.91
564830_4183690	564830	4183690	1.90E-02	1.76E-02	1.56E-02	0.00E+00	8.27E-03	1.42E-02	2.27E-03	4.77E-03	potential residence	2.58E-07	5.78E-06	7.39E-07	6.77
564850_4183690	564850	4183690	1.86E-02	1.72E-02	1.52E-02	0.00E+00	8.02E-03	1.38E-02	2.20E-03	4.62E-03	potential residence	2.53E-07	5.66E-06	7.17E-07	6.63
564870_4183690	564870	4183690	1.82E-02	1.68E-02	1.49E-02	0.00E+00	7.81E-03	1.34E-02	2.14E-03	4.50E-03	potential residence	2.47E-07	5.53E-06	6.98E-07	6.48
564890_4183690	564890	4183690	1.75E-02	1.61E-02	1.43E-02	0.00E+00	7.50E-03	1.29E-02	2.06E-03	4.33E-03	potential residence	2.37E-07	5.30E-06	6.71E-07	6.21
564910_4183690	564910	4183690	1.66E-02	1.53E-02	1.36E-02	0.00E+00	7.21E-03	1.24E-02	1.98E-03	4.16E-03	potential residence	2.25E-07	5.03E-06	6.44E-07	5.90
564930_4183690	564930	4183690	1.56E-02	1.44E-02	1.28E-02	0.00E+00	6.94E-03	1.19E-02	1.90E-03	4.01E-03	potential residence	2.12E-07	4.75E-06	6.19E-07	5.58
564290_4183710	564290	4183710	1.84E-03	1.69E-03	1.50E-03	0.00E+00	2.52E-03	4.33E-03	6.91E-04	1.45E-03	potential residence	2.49E-08	5.57E-07	2.07E-07	0.79
564310_4183710	564310	4183710	1.97E-03	1.82E-03	1.61E-03	0.00E+00	2.78E-03	4.77E-03	7.62E-04	1.60E-03	potential residence	2.68E-08	5.98E-07	2.28E-07	0.85
564330_4183710	564330	4183710	2.12E-03	1.95E-03	1.73E-03	0.00E+00	3.07E-03	5.28E-03	8.43E-04	1.77E-03	potential residence	2.88E-08	6.43E-07	2.52E-07	0.92
564350_4183710	564350	4183710	2.29E-03	2.11E-03	1.87E-03	0.00E+00	3.41E-03	5.87E-03	9.37E-04	1.97E-03	potential residence	3.11E-08	6.94E-07	2.80E-07	1.01
564370_4183710	564370	4183710	2.48E-03	2.28E-03	2.02E-03	0.00E+00	3.80E-03	6.53E-03	1.04E-03	2.19E-03	potential residence	3.36E-08	7.51E-07	3.11E-07	1.10
564390_4183710	564390	4183710	2.68E-03	2.47E-03	2.19E-03	0.00E+00	4.11E-03	7.06E-03	1.13E-03	2.37E-03	potential residence	3.64E-08	8.13E-07	3.36E-07	1.19
564410_4183710	564410	4183710	2.91E-03	2.68E-03	2.38E-03	0.00E+00	4.54E-03	7.80E-03	1.25E-03	2.62E-03	potential residence	3.95E-08	8.83E-07	3.71E-07	1.29
564430_4183710	564430	4183710	3.20E-03	2.95E-03	2.62E-03	0.00E+00	5.03E-03	8.65E-03	1.38E-03	2.90E-03	potential residence	4.34E-08	9.71E-07	4.12E-07	1.43
564450_4183710	564450	4183710	3.54E-03	3.26E-03	2.89E-03	0.00E+00	5.53E-03	9.50E-03	1.52E-03	3.19E-03	potential residence	4.80E-08	1.07E-06	4.52E-07	1.57
564470_4183710	564470	4183710	3.93E-03	3.62E-03	3.21E-03	0.00E+00	6.00E-03	1.03E-02	1.65E-03	3.46E-03	potential residence	5.33E-08	1.19E-06	4.91E-07	1.74
564490_4183710	564490	4183710	4.40E-03	4.06E-03	3.60E-03	0.00E+00	6.43E-03	1.11E-02	1.76E-03	3.71E-03	potential residence	5.97E-08	1.34E-06	5.28E-07	1.92
564530_4183710	564530	4183710	5.59E-03	5.15E-03	4.57E-03	0.00E+00	7.17E-03	1.23E-02	1.97E-03	4.14E-03	potential residence	7.58E-08	1.69E-06	5.91E-07	2.36
564550_4183710	564550	4183710	6.28E-03	5.79E-03	5.14E-03	0.00E+00	7.42E-03	1.27E-02	2.03E-03	4.28E-03	potential residence	8.52E-08	1.91E-06	6.14E-07	2.60
564570_4183710	564570	4183710	7.10E-03	6.54E-03	5.80E-03	0.00E+00	7.63E-03	1.31E-02	2.09E-03	4.40E-03	potential residence	9.63E-08	2.15E-06	6.34E-07	2.88
564590_4183710	564590	4183710	8.01E-03	7.39E-03	6.55E-03	0.00E+00	7.80E-03	1.34E-02	2.14E-03	4.50E-03	potential residence	1.09E-07	2.43E-06	6.52E-07	3.19
564650_4183710	564650	4183710	1.08E-02	9.95E-03	8.82E-03	0.00E+00	8.18E-03	1.41E-02	2.25E-03	4.72E-03	potential residence	1.46E-07	3.27E-06	6.95E-07	4.11
564670_4183710	564670	4183710	1.16E-02	1.07E-02	9.50E-03	0.00E+00	8.47E-03	1.46E-02	2.32E-03	4.89E-03	potential residence	1.58E-07	3.53E-06	7.21E-07	4.41
564690_4183710	564690	4183710	1.24E-02	1.15E-02	1.02E-02	0.00E+00	8.45E-03	1.45E-02	2.32E-03	4.88E-03	potential residence	1.69E-07	3.77E-06	7.23E-07	4.67
564710_4183710	564710	4183710	1.30E-02	1.20E-02	1.06E-02	0.00E+00	8.31E-03	1.43E-02	2.28E-03	4.80E-03	potential residence	1.76E-07	3.95E-06	7.15E-07	4.84
564730_4183710	564730	4183710	1.41E-02	1.30E-02	1.15E-02	0.00E+00	8.13E-03	1.40E-02	2.23E-03	4.69E-03	potential residence	1.91E-07	4.28E-06	7.05E-07	5.18
564750_4183710	564750	4183710	1.44E-02	1.33E-02	1.18E-02	0.00E+00	7.88E-03	1.35E-02	2.16E-03	4.55E-03	potential residence	1.96E-07	4.38E-06	6.87E-07	5.27
564770_4183710	564770	4183710	1.46E-02	1.35E-02	1.20E-02	0.00E+00	7.60E-03	1.31E-02	2.08E-03	4.38E-03	potential residence	1.98E-07	4.44E-06	6.66E-07	5.30
564790_4183710	564790	4183710	1.48E-02	1.36E-02	1.21E-02	0.00E+00	7.35E-03	1.26E-02	2.01E-03	4.24E-03	potential residence	2.01E-07	4.49E-06	6.47E-07	5.34
564810_4183710	564810	4183710	1.48E-02	1.36E-02	1.21E-02	0.00E+00	7.08E-03	1.22E-02	1.94E-03	4.09E-03	potential residence	2.00E-07	4.48E-06	6.26E-07	5.31
564830_4183710	564830	4183710	1.46E-02	1.34E-02	1.19E-02	0.00E+00	6.82E-03	1.17E-02	1.87E-03	3.94E-03	potential residence	1.98E-07	4.42E-06	6.04E-07	5.22
564850_4183710	564850	4183710	1.42E-02	1.31E-02	1.16E-02	0.00E+00	6.56E-03	1.13E-02	1.80E-03	3.78E-03	potential residence	1.92E-07	4.30E-06	5.82E-07	5.08
564870_4183710	564870	4183710	1.38E-02	1.28E-02	1.13E-02	0.00E+00	6.36E-03	1.09E-02	1.75E-03	3.67E-03	potential residence	1.88E-07	4.20E-06	5.65E-07	4.95
564890_4183710	564890	4183710	1.38E-02	1.27E-02	1.13E-02	0.00E+00	6.30E-03	1.08E-02	1.73E-03	3.63E-03	potential residence	1.87E-07	4.18E-06	5.59E-07	4.93
564910_4183710	564910	4183710	1.32E-02	1.22E-02	1.08E-02	0.00E+00	6.08E-03	1.04E-02	1.67E-03	3.51E-03	potential residence	1.79E-07	4.00E-06	5.39E-07	4.72
564930_4183710	564930	4183710	1.26E-02	1.16E-02	1.03E-02	0.00E+00	5.87E-03	1.01E-02	1.61E-03	3.39E-03	potential residence	1.71E-07	3.82E-06	5.20E-07	4.51
564950_4183710	564950	4183710	1.21E-02	1.11E-02	9.87E-03	0.00E+00	5.65E-03	9.70E-03	1.55E-03	3.26E-03	potential residence	1.64E-07	3.66E-06	5.00E-07	4.33
564310_4183730	564310	4183730	1.92E-03	1.77E-03	1.57E-03	0.00E+00	2.66E-03	4.58E-03	7.31E-04	1.54E-03	potential residence	2.60E-08	5.81E-07	2.19E-07	0.83
564330_4183730	564330	4183730	2.05E-03	1.89E-03	1.68E-03	0.00E+00	2.85E-03	4.90E-03	7.82E-04	1.64E-03	potential residence	2.79E-08	6.23E-07	2.34E-07	0.88
564350_4183730	564350	4183730	2.22E-03	2.04E-03	1.81E-03	0.00E+00	3.14E-03	5.40E-03	8.63E-04	1.81E-03	potential residence	3.01E-08	6.72E-07	2.58E-07	0.96
564370_4183730	564370	4183730	2.40E-03	2.21E-03	1.96E-03	0.00E+00	3.48E-03	5.97E-03	9.54E-04	2.01E-03	potential residence	3.26E-08	7.29E-07	2.85E-07	1.05
564390_4183730	564390	4183730	2.60E-03	2.39E-03	2.12E-03	0.00E+00	3.80E-03	6.53E-03	1.04E-03	2.19E-03	potential residence	3.52E-08	7.87E-07	3.12E-07	1.13
564410_4183730	564410	4183730	2.82E-03	2.60E-03	2.31E-03	0.00E+00	4.15E-03	7.13E-03	1.14E-03	2.39E-03	potential residence	3.83E-08	8.56E-07	3.40E-07	1.23
564430_4183730	564430	4183730	3.10E-03	2.86E-03	2.54E-03	0.00E+00	4.53E-03	7.78E-03	1.24E-03	2.61E-03	potential residence	4.21E-08	9.41E-07	3.71E-07	1.35
564450_4183730	564450	4183730	3.43E-03	3.16E-03	2.80E-03	0.00E+00	4.88E-03	8.39E-03	1.34E-03	2.82E-03	potential residence	4.65E-08	1.04E-06	4.01E-07	1.49
564470_4183730	564470	4183730	3.79E-03	3.50E-03	3.10E-03	0.00E+00	5.20E-03	8.93E-03	1.43E-03	3.00E-03	potential residence	5.14E-08	1.15E-06	4.27E-07	1.63
564490_4183730	564490	4183730	4.22E-03	3.89E-03	3.45E-03	0.00E+00	5.48E-03	9.42E-03	1.50E-03	3.16E-03	potential residence	5.72E-08	1.28E-06	4.51E-07	1.79
564510_4183730	564510	4183730	4.70E-03	4.33E-03	3.84E-03	0.00E+00	5.73E-03	9.84E-03	1.57E-03	3.30E-03	potential residence	6.37E-08	1.42E-06	4.73E-07	1.96
564530_4183730	564530	4183730	5.23E-03	4.83E-03	4.28E-03	0.00E+00	5.95E-03	1.02E-02	1.63E-03	3.43E-03	potential residence	7.10E-08	1.59E-06	4.93E-07	2.15
564550_4183730	564550	4183730	5.81E-03	5.36E-03	4.75E-03	0.00E+00	6.12E-03	1.05E-02	1.68E-03	3.53E-03	potential residence	7.88E-08	1.76E-06	5.09E-07	2.35
564570_4183730	564570	4183730	6.46E-03	5.96E-03	5.28E-03	0.00E+00	6.27E-03	1.08E-02	1.72E-03	3.62E-03	potential residence	8.77E-08	1.96E-06	5.24E-07	2.57
564590_4183730	564590	4183730	7.14E-03	6.59E-03	5.84E-03	0.00E+00	6.38E-03	1.10E-02	1.75E-03	3.68E-03	potential residence	9.69E-08	2.17E-06	5.36E-07	2.80
564610_4183730	564610	4183730	7.82E-03	7.21E-03	6.40E-03	0.00E+00	6.50E-03	1.12E-02	1.78E-03	3.75E-03	potential residence	1.06E-07	2.37E-06	5.48E-07	3.03
564630_4183730	564630	4183730	8.46E-03	7.80E-03	6.92E-03	0.00E+00	6.61E-03	1.14E-02	1.81E-03	3.81E-03	potential residence	1.15E-07	2.57E-06	5.60E-07	3.24
564650_4183730	564650	4183730	9.01E-03	8.31E-03	7.37E-03	0.00E+00	6.68E-03	1.15E-02	1.83E-03	3.85E-03	potential residence	1.22E-07	2.73E-06	5.68E-07	3.42
564670_4183730	564670	4183730	9.53E-03	8.79E-03	7.79E-03	0.00E+00	6.73E-03	1.16E-02	1.85E-03	3.88E-03	potential residence	1.29E-07	2.89E-06	5.74E-07	3.60
564690_4183730	564690	4183730	1.00E-02	9.25E-03	8.20E-03	0.00E+00	6.90E-03	1.19E-02	1.89E-03	3.98E-03	potential residence	1.36E-07	3.04E-06	5.90E-07	3.77
564710_4183730	564710	4183730	1.04E-02	9.58E-03	8.49E-03	0.00E+00	6.83E-03	1.17E-02	1.87E-03	3.94E-03	potential residence	1.41E-07	3.15E-06	5.86E-07	3.88
564730_4183730	564730	4183730	1.07E-02	9.86E-03	8.74E-03	0.00E+00	6.71E-03	1.15E-02	1.84E-03	3.87E-03	potential residence	1.45E-07	3.24E-06	5.78E-07	3.97
564750_4183730	564750	4183730	1.14E-02	1.05E-02	9.33E-03	0.00E+00	6.57E-03	1.13E-02	1.80E-03	3.79E-03	potential residence	1.55E-07	3.46E-06	5.70E-07	4.19
564770_4183730	564770	4183730	1.16E-02	1.07E-02	9.46E-03	0.00E+00	6.38E-03	1.10E-02	1.75E-03	3.68E-03	potential residence	1.57E-07	3.51E-06	5.56E-07	4.22
564790_4183730	564790	4183730	1.16E-02	1.07E-02	9.48E-03	0.00E+00	6.16E-03	1.06E-02	1.69E-03	3.55E-03	potential residence	1.57E-07	3.52E-06	5.38E-07	4.22
564810_4183730	564810	4183730	1.16E-02	1.07E-02	9.52E-03	0.00E+00	5.97E-03	1.03E-02	1.64E-03	3.44E-03	potential residence	1.58E-07	3.53E-06	5.23E-07	4.22
564830_4183730	564830	4183730	1.16E-02	1.07E-02	9.47E-03	0.00E+00	5.77E-03	9.91E-03	1.58E-03	3.33E-03	potential residence	1.57E-07	3.52E-06	5.07E-07	4.18
564850_4183730	564850	4183730	1.14E-02	1.05E-02	9.34E-03	0.00E+00	5.58E-03	9.58E-03	1.53E-03	3.22E-03	potential residence	1.55E-07	3.46E-06	4.92E-07	4.11
564870_4183730	564870	4183730	1.10E-02	1.02E-02	9.02E-03	0.00E+00	5.35E-03	9.20E-03	1.47E-03	3.09E-03	potential residence	1.50E-07	3.35E-06	4.72E-07	3.97
564890_4183730	564890	4183730	1.13E-02	1.04E-02	9.21E-03	0.00E+00	5.36E-03	9.21E-03	1.47E-03	3.09E-03	potential residence	1.53E-07	3.42E-06	4.74E-07	4.05
564910_4183730	564910	4183730	1.08E-02	9.96E-03	8.83E-03	0.00E+00	5.18E-03	8.91E-03	1.42E-03	2.99E-03	potential residence	1.46E-07	3.28E-06	4.58E-07	3.88
564930_4183730	564930	4183730	1.04E-02	9.57E-03	8.49E-03	0.00E+00	5.02E-03	8.63E-03	1.38E-03	2.90E-03	potential residence	1.41E-07	3.15E-06	4.43E-07	3.73
564950_4183730	564950	4183730	9.98E-03	9.20E-03	8.16E-03	0.00E+00	4.85E-03	8.33E-03	1.33E-03	2.80E-03	potential residence	1.35E-07	3.03E-06	4.28E-07	3.59
564330_4183750	564330	4183750	1.99E-03	1.84E-03	1.63E-03	0.00E+00	2.70E-03	4.64E-03	7.41E-04	1.56E-03	potential residence	2.70E-08	6.04E-07	2.22E-07	0.85
564350_4183750	564350	4183750	2.15E-03	1.98E-03	1.76E-03	0.00E+00	2.96E-03	5.09E-03	8.13E-04	1.71E-03	potential residence	2.92E-08	6.53E-07	2.44E-07	0.93
564370_4183750	564370	4183750	2.33E-03	2.14E-03	1.90E-03	0.00E+00	3.23E-03	5.55E-03	8.86E-04	1.86E-03	potential residence	3.16E-08	7.06E-07	2.65E-07	1.00
564390_4183750	564390	4183750	2.53E-03	2.33E-03	2.07E-03	0.00E+00	3.51E-03	6.04E-03	9.64E-04	2.03E-03	potential residence	3.43E-08	7.67E-07	2.89E-07	1.09
564410_4183750	564410	4183750	2.75E-03	2.53E-03	2.25E-03	0.00E+00	3.79E-03	6.51E-03	1.04E-03	2.19E-03	potential residence	3.73E-08	8.34E-07	3.11E-07	1.18
564430_4183750	564430	4183750	3.01E-03	2.77E-03	2.46E-03	0.00E+00	4.06E-03	6.97E-03	1.11E-03	2.34E-03	potential residence	4.08E-08	9.13E-07	3.34E-07	1.29
564450_4183750	564450	4183750	3.31E-03	3.05E-03	2.70E-03	0.00E+00	4.30E-03	7.39E-03	1.18E-03	2.48E-03	potential residence	4.49E-08	1.00E-06	3.54E-07	1.40
564470_4183750	564470	4183750	3.63E-03	3.35E-03	2.97E-03	0.00E+00	4.50E-03	7.73E-03	1.23E-03	2.59E-03	potential residence	4.92E-08	1.10E-06	3.71E-07	1.52
564490_4183750	564490	4183750	4.01E-03	3.70E-03	3.28E-03	0.00E+00	4.69E-03	8.05E-03	1.29E-03	2.70E-03	potential residence	5.44E-08	1.22E-06	3.88E-07	1.66
564510_4183750	564510	4183750	4.44E-03	4.10E-03	3.63E-03	0.00E+00	4.89E-03	8.40E-03	1.34E-03	2.82E-03	potential residence	6.03E-08	1.35E-06	4.06E-07	1.81
564530_4183750	564530	4183750	4.86E-03	4.48E-03	3.97E-03	0.00E+00	5.01E-03	8.61E-03	1.37E-03	2.89E-03	potential residence	6.59E-08	1.47E-06	4.17E-07	1.96
564550_4183750	564550	4183750	5.35E-03	4.94E-03	4.38E-03	0.00E+00	5.16E-03	8.87E-03	1.42E-03	2.98E-03	potential residence	7.26E-08	1.62E-06	4.32E-07	2.13
564570_4183750	564570	4183750	5.84E-03	5.38E-03	4.77E-03	0.00E+00	5.25E-03	9.02E-03	1.44E-03	3.03E-03	potential residence	7.92E-08	1.77E-06	4.41E-07	2.29
564590_4183750	564590	4183750	6.34E-03	5.84E-03	5.18E-03	0.00E+00	5.33E-03	9.17E-03	1.46E-03	3.08E-03	potential residence	8.59E-08	1.92E-06	4.50E-07	2.46
564610_4183750	564610	4183750	6.83E-03	6.30E-03	5.58E-03	0.00E+00	5.43E-03	9.34E-03	1.49E-03	3.14E-03	potential residence	9.26E-08	2.07E-06	4.60E-07	2.62
564630_4183750	564630	4183750	7.21E-03	6.65E-03	5.90E-03	0.00E+00	5.47E-03	9.41E-03	1.50E-03	3.16E-03	potential residence	9.78E-08	2.19E-06	4.65E-07	2.75

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

			Unmitigated								Receptor Type	$\sum R1*C_{DPM}$			
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564650_4183750	564650	4183750	7.57E-03	6.98E-03	6.19E-03	0.00E+00	5.53E-03	9.50E-03	1.52E-03	3.19E-03	potential residence	1.03E-07	2.30E-06	4.70E-07	2.87
564670_4183750	564670	4183750	7.87E-03	7.26E-03	6.43E-03	0.00E+00	5.54E-03	9.52E-03	1.52E-03	3.20E-03	potential residence	1.07E-07	2.39E-06	4.73E-07	2.97
564690_4183750	564690	4183750	8.22E-03	7.58E-03	6.72E-03	0.00E+00	5.59E-03	9.60E-03	1.53E-03	3.22E-03	potential residence	1.11E-07	2.49E-06	4.78E-07	3.08
564710_4183750	564710	4183750	8.47E-03	7.81E-03	6.93E-03	0.00E+00	5.57E-03	9.58E-03	1.53E-03	3.22E-03	potential residence	1.15E-07	2.57E-06	4.78E-07	3.16
564730_4183750	564730	4183750	8.69E-03	8.01E-03	7.10E-03	0.00E+00	5.64E-03	9.69E-03	1.55E-03	3.25E-03	potential residence	1.18E-07	2.64E-06	4.84E-07	3.24
564750_4183750	564750	4183750	9.25E-03	8.53E-03	7.56E-03	0.00E+00	5.55E-03	9.54E-03	1.52E-03	3.20E-03	potential residence	1.25E-07	2.81E-06	4.80E-07	3.41
564770_4183750	564770	4183750	9.36E-03	8.63E-03	7.65E-03	0.00E+00	5.43E-03	9.32E-03	1.49E-03	3.13E-03	potential residence	1.27E-07	2.84E-06	4.70E-07	3.44
564790_4183750	564790	4183750	9.39E-03	8.67E-03	7.68E-03	0.00E+00	5.26E-03	9.05E-03	1.44E-03	3.04E-03	potential residence	1.27E-07	2.85E-06	4.58E-07	3.44
564810_4183750	564810	4183750	9.44E-03	8.71E-03	7.72E-03	0.00E+00	5.11E-03	8.79E-03	1.40E-03	2.95E-03	potential residence	1.28E-07	2.87E-06	4.46E-07	3.44
564830_4183750	564830	4183750	9.46E-03	8.73E-03	7.74E-03	0.00E+00	4.97E-03	8.53E-03	1.36E-03	2.87E-03	potential residence	1.28E-07	2.87E-06	4.35E-07	3.43
564850_4183750	564850	4183750	9.43E-03	8.70E-03	7.71E-03	0.00E+00	4.83E-03	8.30E-03	1.33E-03	2.79E-03	potential residence	1.28E-07	2.86E-06	4.24E-07	3.41
564870_4183750	564870	4183750	9.36E-03	8.64E-03	7.66E-03	0.00E+00	4.72E-03	8.11E-03	1.29E-03	2.72E-03	potential residence	1.27E-07	2.84E-06	4.15E-07	3.38
564890_4183750	564890	4183750	9.34E-03	8.62E-03	7.64E-03	0.00E+00	4.62E-03	7.94E-03	1.27E-03	2.67E-03	potential residence	1.27E-07	2.83E-06	4.07E-07	3.37
564910_4183750	564910	4183750	9.03E-03	8.33E-03	7.39E-03	0.00E+00	4.47E-03	7.68E-03	1.23E-03	2.58E-03	potential residence	1.23E-07	2.74E-06	3.94E-07	3.26
564930_4183750	564930	4183750	8.70E-03	8.02E-03	7.11E-03	0.00E+00	4.34E-03	7.46E-03	1.19E-03	2.50E-03	potential residence	1.18E-07	2.64E-06	3.82E-07	3.14
564950_4183750	564950	4183750	8.35E-03	7.70E-03	6.83E-03	0.00E+00	4.18E-03	7.19E-03	1.15E-03	2.41E-03	potential residence	1.13E-07	2.53E-06	3.68E-07	3.01
564370_4183770	564370	4183770	2.27E-03	2.09E-03	1.85E-03	0.00E+00	3.00E-03	5.16E-03	8.23E-04	1.73E-03	potential residence	3.07E-08	6.87E-07	2.47E-07	0.96
564390_4183770	564390	4183770	2.45E-03	2.26E-03	2.00E-03	0.00E+00	3.22E-03	5.53E-03	8.82E-04	1.86E-03	potential residence	3.33E-08	7.44E-07	2.65E-07	1.04
564410_4183770	564410	4183770	2.67E-03	2.46E-03	2.18E-03	0.00E+00	3.43E-03	5.90E-03	9.41E-04	1.98E-03	potential residence	3.62E-08	8.10E-07	2.83E-07	1.13
564430_4183770	564430	4183770	2.90E-03	2.67E-03	2.37E-03	0.00E+00	3.61E-03	6.20E-03	9.90E-04	2.08E-03	potential residence	3.93E-08	8.80E-07	2.98E-07	1.22
564450_4183770	564450	4183770	3.17E-03	2.92E-03	2.59E-03	0.00E+00	3.78E-03	6.49E-03	1.04E-03	2.18E-03	potential residence	4.30E-08	9.62E-07	3.13E-07	1.32
564470_4183770	564470	4183770	3.46E-03	3.19E-03	2.83E-03	0.00E+00	3.91E-03	6.71E-03	1.07E-03	2.25E-03	potential residence	4.69E-08	1.05E-06	3.24E-07	1.42
564490_4183770	564490	4183770	3.79E-03	3.49E-03	3.10E-03	0.00E+00	4.05E-03	6.95E-03	1.11E-03	2.34E-03	potential residence	5.14E-08	1.15E-06	3.37E-07	1.54
564510_4183770	564510	4183770	4.16E-03	3.84E-03	3.40E-03	0.00E+00	4.20E-03	7.22E-03	1.15E-03	2.43E-03	potential residence	5.65E-08	1.26E-06	3.51E-07	1.67
564530_4183770	564530	4183770	4.53E-03	4.18E-03	3.71E-03	0.00E+00	4.33E-03	7.44E-03	1.19E-03	2.50E-03	potential residence	6.15E-08	1.38E-06	3.62E-07	1.80
564550_4183770	564550	4183770	4.90E-03	4.51E-03	4.00E-03	0.00E+00	4.42E-03	7.59E-03	1.21E-03	2.55E-03	potential residence	6.64E-08	1.49E-06	3.71E-07	1.92
564570_4183770	564570	4183770	5.28E-03	4.87E-03	4.32E-03	0.00E+00	4.50E-03	7.74E-03	1.24E-03	2.60E-03	potential residence	7.16E-08	1.60E-06	3.79E-07	2.05
564590_4183770	564590	4183770	5.63E-03	5.19E-03	4.60E-03	0.00E+00	4.55E-03	7.82E-03	1.25E-03	2.62E-03	potential residence	7.63E-08	1.71E-06	3.84E-07	2.17
564610_4183770	564610	4183770	5.92E-03	5.46E-03	4.84E-03	0.00E+00	4.57E-03	7.85E-03	1.25E-03	2.64E-03	potential residence	8.02E-08	1.79E-06	3.87E-07	2.26
564630_4183770	564630	4183770	6.18E-03	5.70E-03	5.05E-03	0.00E+00	4.60E-03	7.91E-03	1.26E-03	2.66E-03	potential residence	8.38E-08	1.87E-06	3.91E-07	2.35
564650_4183770	564650	4183770	6.47E-03	5.97E-03	5.29E-03	0.00E+00	4.68E-03	8.04E-03	1.28E-03	2.70E-03	potential residence	8.78E-08	1.96E-06	3.98E-07	2.45
564670_4183770	564670	4183770	6.70E-03	6.18E-03	5.48E-03	0.00E+00	4.70E-03	8.08E-03	1.29E-03	2.71E-03	potential residence	9.09E-08	2.03E-06	4.01E-07	2.53
564690_4183770	564690	4183770	6.90E-03	6.36E-03	5.64E-03	0.00E+00	4.72E-03	8.11E-03	1.29E-03	2.72E-03	potential residence	9.35E-08	2.09E-06	4.04E-07	2.59
564710_4183770	564710	4183770	7.10E-03	6.54E-03	5.80E-03	0.00E+00	4.84E-03	8.31E-03	1.33E-03	2.79E-03	potential residence	9.62E-08	2.15E-06	4.14E-07	2.66
564730_4183770	564730	4183770	7.25E-03	6.69E-03	5.93E-03	0.00E+00	4.81E-03	8.27E-03	1.32E-03	2.78E-03	potential residence	9.84E-08	2.20E-06	4.13E-07	2.71
564750_4183770	564750	4183770	7.67E-03	7.07E-03	6.27E-03	0.00E+00	4.75E-03	8.17E-03	1.30E-03	2.74E-03	potential residence	1.04E-07	2.33E-06	4.10E-07	2.84
564770_4183770	564770	4183770	7.74E-03	7.14E-03	6.33E-03	0.00E+00	4.67E-03	8.02E-03	1.28E-03	2.69E-03	potential residence	1.05E-07	2.35E-06	4.03E-07	2.86
564790_4183770	564790	4183770	7.79E-03	7.19E-03	6.37E-03	0.00E+00	4.56E-03	7.84E-03	1.25E-03	2.63E-03	potential residence	1.06E-07	2.36E-06	3.95E-07	2.87
564810_4183770	564810	4183770	7.84E-03	7.23E-03	6.41E-03	0.00E+00	4.44E-03	7.64E-03	1.22E-03	2.56E-03	potential residence	1.06E-07	2.38E-06	3.86E-07	2.87
564830_4183770	564830	4183770	7.89E-03	7.27E-03	6.45E-03	0.00E+00	4.34E-03	7.45E-03	1.19E-03	2.50E-03	potential residence	1.07E-07	2.39E-06	3.78E-07	2.88
564850_4183770	564850	4183770	7.95E-03	7.33E-03	6.50E-03	0.00E+00	4.25E-03	7.30E-03	1.17E-03	2.45E-03	potential residence	1.08E-07	2.41E-06	3.71E-07	2.89
564870_4183770	564870	4183770	8.00E-03	7.38E-03	6.54E-03	0.00E+00	4.17E-03	7.17E-03	1.14E-03	2.41E-03	potential residence	1.09E-07	2.43E-06	3.66E-07	2.90
564890_4183770	564890	4183770	7.85E-03	7.24E-03	6.42E-03	0.00E+00	4.03E-03	6.92E-03	1.11E-03	2.32E-03	potential residence	1.07E-07	2.38E-06	3.53E-07	2.84
564910_4183770	564910	4183770	7.61E-03	7.02E-03	6.22E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.24E-03	potential residence	1.03E-07	2.31E-06	3.41E-07	2.75
564930_4183770	564930	4183770	7.36E-03	6.79E-03	6.02E-03	0.00E+00	3.77E-03	6.48E-03	1.03E-03	2.18E-03	potential residence	9.99E-08	2.23E-06	3.31E-07	2.67
564410_4183790	564410	4183790	2.59E-03	2.38E-03	2.11E-03	0.00E+00	3.10E-03	5.33E-03	8.51E-04	1.79E-03	potential residence	3.51E-08	7.84E-07	2.56E-07	1.08
564430_4183790	564430	4183790	2.79E-03	2.57E-03	2.28E-03	0.00E+00	3.21E-03	5.52E-03	8.82E-04	1.85E-03	potential residence	3.78E-08	8.45E-07	2.66E-07	1.15
564450_4183790	564450	4183790	3.02E-03	2.79E-03	2.47E-03	0.00E+00	3.33E-03	5.71E-03	9.12E-04	1.92E-03	potential residence	4.10E-08	9.17E-07	2.76E-07	1.23
564470_4183790	564470	4183790	3.29E-03	3.04E-03	2.69E-03	0.00E+00	3.44E-03	5.90E-03	9.43E-04	1.98E-03	potential residence	4.47E-08	9.99E-07	2.86E-07	1.33
564490_4183790	564490	4183790	3.56E-03	3.28E-03	2.91E-03	0.00E+00	3.52E-03	6.05E-03	9.67E-04	2.03E-03	potential residence	4.83E-08	1.08E-06	2.94E-07	1.42
564510_4183790	564510	4183790	3.87E-03	3.57E-03	3.16E-03	0.00E+00	3.65E-03	6.27E-03	1.00E-03	2.10E-03	potential residence	5.25E-08	1.17E-06	3.05E-07	1.53
564530_4183790	564530	4183790	4.16E-03	3.84E-03	3.40E-03	0.00E+00	3.74E-03	6.43E-03	1.03E-03	2.16E-03	potential residence	5.65E-08	1.26E-06	3.14E-07	1.63
564550_4183790	564550	4183790	4.46E-03	4.11E-03	3.65E-03	0.00E+00	3.83E-03	6.59E-03	1.05E-03	2.21E-03	potential residence	6.05E-08	1.35E-06	3.23E-07	1.74
564570_4183790	564570	4183790	4.72E-03	4.35E-03	3.86E-03	0.00E+00	3.87E-03	6.65E-03	1.06E-03	2.23E-03	potential residence	6.40E-08	1.43E-06	3.27E-07	1.82
564590_4183790	564590	4183790	4.94E-03	4.56E-03	4.04E-03	0.00E+00	3.88E-03	6.67E-03	1.06E-03	2.24E-03	potential residence	6.70E-08	1.50E-06	3.29E-07	1.90
564610_4183790	564610	4183790	5.13E-03	4.73E-03	4.20E-03	0.00E+00	3.88E-03	6.67E-03	1.07E-03	2.24E-03	potential residence	6.96E-08	1.56E-06	3.30E-07	1.96
564630_4183790	564630	4183790	5.33E-03	4.91E-03	4.36E-03	0.00E+00	3.92E-03	6.73E-03	1.07E-03	2.26E-03	potential residence	7.23E-08	1.62E-06	3.33E-07	2.02
564650_4183790	564650	4183790	5.57E-03	5.14E-03	4.56E-03	0.00E+00	3.99E-03	6.86E-03	1.10E-03	2.30E-03	potential residence	7.56E-08	1.69E-06	3.40E-07	2.11
564670_4183790	564670	4183790	5.77E-03	5.32E-03	4.72E-03	0.00E+00	4.15E-03	7.13E-03	1.14E-03	2.39E-03	potential residence	7.83E-08	1.75E-06	3.53E-07	2.18
564690_4183790	564690	4183790	5.90E-03	5.45E-03	4.83E-03	0.00E+00	4.06E-03	6.97E-03	1.11E-03	2.34E-03	potential residence	8.01E-08	1.79E-06	3.47E-07	2.22
564710_4183790	564710	4183790	6.40E-03	5.90E-03	5.23E-03	0.00E+00	4.21E-03	7.23E-03	1.15E-03	2.43E-03	potential residence	8.68E-08	1.94E-06	3.61E-07	2.39
564730_4183790	564730	4183790	6.71E-03	6.19E-03	5.48E-03	0.00E+00	4.31E-03	7.41E-03	1.18E-03	2.49E-03	potential residence	9.10E-08	2.04E-06	3.71E-07	2.50
564750_4183790	564750	4183790	6.51E-03	6.00E-03	5.32E-03	0.00E+00	4.13E-03	7.10E-03	1.13E-03	2.39E-03	potential residence	8.82E-08	1.97E-06	3.56E-07	2.42
564770_4183790	564770	4183790	6.50E-03	5.99E-03	5.31E-03	0.00E+00	4.05E-03	6.96E-03	1.11E-03	2.34E-03	potential residence	8.81E-08	1.97E-06	3.49E-07	2.41
564790_4183790	564790	4183790	6.54E-03	6.03E-03	5.35E-03	0.00E+00	3.97E-03	6.83E-03	1.09E-03	2.29E-03	potential residence	8.87E-08	1.99E-06	3.43E-07	2.42
564810_4183790	564810	4183790	6.60E-03	6.09E-03	5.40E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.25E-03	potential residence	8.95E-08	2.00E-06	3.37E-07	2.43
564830_4183790	564830	4183790	6.64E-03	6.12E-03	5.43E-03	0.00E+00	3.80E-03	6.54E-03	1.04E-03	2.19E-03	potential residence	9.01E-08	2.01E-06	3.30E-07	2.44
564850_4183790	564850	4183790	6.74E-03	6.22E-03	5.51E-03	0.00E+00	3.75E-03	6.44E-03	1.03E-03	2.16E-03	potential residence	9.14E-08	2.05E-06	3.26E-07	2.46
564870_4183790	564870	4183790	6.71E-03	6.19E-03	5.49E-03	0.00E+00	3.62E-03	6.23E-03	9.94E-04	2.09E-03	potential residence	9.10E-08	2.04E-06	3.16E-07	2.44
564890_4183790	564890	4183790	6.62E-03	6.11E-03	5.41E-03	0.00E+00	3.52E-03	6.06E-03	9.67E-04	2.03E-03	potential residence	8.98E-08	2.01E-06	3.08E-07	2.41
564910_4183790	564910	4183790	6.50E-03	5.99E-03	5.31E-03	0.00E+00	3.43E-03	5.89E-03	9.41E-04	1.98E-03	potential residence	8.81E-08	1.97E-06	3.00E-07	2.36
564930_4183790	564930	4183790	6.36E-03	5.87E-03	5.20E-03	0.00E+00	3.35E-03	5.76E-03	9.20E-04	1.93E-03	potential residence	8.63E-08	1.93E-06	2.93E-07	2.31
564450_4183810	564450	4183810	2.88E-03	2.66E-03	2.36E-03	0.00E+00	2.95E-03	5.07E-03	8.10E-04	1.70E-03	potential residence	3.91E-08	8.75E-07	2.46E-07	1.16
564470_4183810	564470	4183810	3.11E-03	2.87E-03	2.55E-03	0.00E+00	3.04E-03	5.22E-03	8.33E-04	1.75E-03	potential residence	4.22E-08	9.45E-07	2.54E-07	1.24
564490_4183810	564490	4183810	3.35E-03	3.09E-03	2.74E-03	0.00E+00	3.12E-03	5.36E-03	8.56E-04	1.80E-03	potential residence	4.54E-08	1.02E-06	2.61E-07	1.32
564510_4183810	564510	4183810	3.59E-03	3.31E-03	2.93E-03	0.00E+00	3.21E-03	5.51E-03	8.79E-04	1.85E-03	School	4.87E-08	1.09E-06	2.69E-07	1.41
564530_4183810	564530	4183810	3.83E-03	3.53E-03	3.13E-03	0.00E+00	3.29E-03	5.65E-03	9.03E-04	1.90E-03	School	5.19E-08	1.16E-06	2.77E-07	1.49
564550_4183810	564550	4183810	4.04E-03	3.73E-03	3.30E-03	0.00E+00	3.35E-03	5.76E-03	9.19E-04	1.93E-03	potential residence	5.48E-08	1.23E-06	2.83E-07	1.56
564570_4183810	564570	4183810	4.22E-03	3.89E-03	3.45E-03	0.00E+00	3.37E-03	5.78E-03	9.23E-04	1.94E-03	potential residence	5.72E-08	1.28E-06	2.85E-07	1.62
564590_4183810	564590	4183810	4.38E-03	4.04E-03	3.58E-03	0.00E+00	3.37E-03	5.80E-03	9.25E-04	1.95E-03	potential residence	5.94E-08	1.33E-06	2.86E-07	1.67
564610_4183810	564610	4183810	4.53E-03	4.18E-03	3.70E-03	0.00E+00	3.38E-03	5.82E-03	9.28E-04	1.95E-03	potential residence	6.14E-08	1.37E-06	2.88E-07	1.72
564630_4183810	564630	4183810	4.67E-03	4.31E-03	3.82E-03	0.00E+00	3.40E-03	5.84E-03	9.32E-04	1.96E-03	potential residence	6.33E-08	1.42E-06	2.89E-07	1.77
564650_4183810	564650	4183810	4.85E-03	4.47E-03	3.96E-03	0.00E+00	3.45E-03	5.93E-03	9.47E-04	1.99E-03	potential residence	6.57E-08	1.47E-06	2.94E-07	1.83
564670_4183810	564670	4183810	5.01E-03	4.62E-03	4.10E-03	0.00E+00	3.59E-03	6.17E-03	9.85E-04	2.07E-03	potential residence	6.79E-08	1.52E-06	3.06E-07	1.89
564690_4183810	564690	4183810	5.16E-03	4.76E-03	4.22E-03	0.00E+00	3.62E-03	6.22E-03	9.93E-04	2.09E-03	potential residence	6.99E-08	1.56E-06	3.09E-07	1.94
564710_4183810	564710	4183810	5.48E-03	5.05E-03	4.48E-03	0.00E+00	3.64E-03	6.25E-03	9.98E-04	2.10E-03	potential residence	7.43E-08	1.66E-06	3.12E-07	2.05
564730_4183810	564730	4183810	5.25E-03	4.85E-03	4.30E-03	0.00E+00	3.61E-03	6.20E-03	9.89E-04	2.08E-03	potential residence	7.12E-08	1.59E-06	3.08E-07	1.97
564750_4183810	564750	4183810	5.29E-03	4.88E-03	4.33E-03	0.00E+00	3.58E-03	6.16E-03	9.83E-04	2.07E-03	potential residence	7.18E-08	1.61E-06	3.07E-07	1.98
564770_4183810	564770	4183810	5.54E-03	5.11E-03	4.53E-03	0.00E+00	3.55E-03	6.10E-03	9.73E-04	2.05E-03	potential residence	7.52E-08	1.68E-06	3.05E-07	2.06
564790_4183810	564790	4183810	5.59E-03	5.15E-03	4.57E-03	0.00E+00	3.50E-03	6.01E-03	9.60E-04	2.02E-03	potential residence	7.58E-08	1.70E-06	3.01E-07	2.07
564810_4183810	564810	4183810	5.63E-03	5.19E-03	4.60E-03	0.00E+00	3.43E-03	5.90E-03	9.42E-04	1.98E-03	potential residence	7.64E-08	1.71E-06	2.96E-07	2.08
564830_4183810	564830	4183810	5.67E-03	5.23E-03	4.64E-03	0.00E+00	3.36E-03	5.78E-03	9.23E-04	1.94E-03	potential residence	7.69E-08	1.72E-06	2.91E-07	2.09
564850_4183810	564850	4183810	5.70E-03	5.26E-03	4.66E-03	0.00E+00	3.29E-03	5.66E-03	9.04E-04	1.90E-03	potential residence	7.73E-08	1.73E-06	2.86E-07	2.09
564870_4183810	564870	4183810	5.76E-03	5.31E-03	4.71E-03	0.00E+00	3.25E-03	5.59E-03	8.92E-04	1.88E-03	potential residence	7.81E-08	1.75E-06	2.83E-07	2.11
564890_4183810	564890	4183810	5.69E-03	5.24E-03	4.65E-03	0.00E+00	3.16E-03	5.43E-03	8.67E-04	1.82E-03	potential residence	7.71E-08	1.73E-06	2.75E-07	2.08
564910_4183810	564910	4183810	5.61E-03	5.17E-03	4.59E-03	0.00E+00	3.08E-03	5.30E-03	8.46E-04	1.78E-03	potential residence	7.61E-08	1.70E-06	2.69E-07	2.05
564930_4183810	564930	4183810	5.51E-03	5.08E-03	4.51E-03	0.00E+00	3.00E-03	5.15E-03	8.22E-04	1.73E-03	potential residence	7.47E-08	1.67E-06	2.61E-07	2.01
564470_4183830	564470	4183830	2.93E-03	2.71E-03	2.40E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	School	3.98E-08	8.90E-07	2.27E-07	1.16
564490_4183830	564490	4183830	3.11E-03	2.87E-03	2.55E-03	0.00E+00	2.76E-03	4.74E-03	7.56E-04	1.59E-03	School	4.22E-08	9.45E-07	2.32E-07	1.22
564510_4183830	564510	4183830	3.30E-03	3.04E-03	2.70E-03	0.00E+00	2.82E-03	4.85E-03	7.74E-04	1.63E-03	School	4.47E-08	1.00E-06	2.38E-07	1.28
564530_4183830	564530	4183830	3.48E-03	3.21E-03	2.84E-03	0.00E+00	2.89E-03	4.96E-03	7.92E-04	1.67E-03	School	4.71E-08	1.05E-06	2.44E-07	1.35
564550_4183830	564550	4183830	3.65E-03	3.37E-03	2.98E-03	0.00E+00	2.95E-03	5.07E-03	8.09E-04	1.70E-03	School	4.95E-08	1.11E-06	2.49E-07	1.41
564570_4183830	564570	4183830	3.79E-03	3.49E-03	3.09E-03	0.00E+00	2.97E-03	5.10E-03	8.14E-04	1.71E-03	potential residence	5.13E-08	1.15E-06	2.51E-07	1.45
564590_4183830	564590	4183830	3.90E-03	3.60E-03	3.19E-03	0.00E+00	2.97E-03	5.10E-03	8.14E-04	1.71E-03	potential residence	5.29E-08	1.18E-06	2.52E-07	1.49
564610_4183830	564610	4183830	4.01E-03	3.70E-03	3.28E-03	0.00E+00	2.97E-03	5.11E-03	8.15E-04	1.71E-03	potential residence	5.44E-08	1.22E-06	2.53E-07	1.52
564630_4183830	564630	4183830	4.14E-03	3.82E-03	3.38E-03	0.00E+00	2.99E-03	5.14E-03	8.21E-04	1.73E-03	potential residence	5.61E-08	1.26E-06	2.55E-07	1.57
564650_4183830	564650	4183830	4.27E-03	3.94E-03	3.49E-03	0.00E+00	3.02E-03	5.19E-03	8.29E-04	1.74E-03	potential residence	5.79E-08	1.30E-06	2.58E-07	1.61
564670_4183830	564670	4183830	4.40E-03	4.06E-03	3.60E-03	0.00E+00	3.14E-03	5.40E-03	8.62E-04	1.81E-03	potential residence	5.96E-08	1.33E-06	2.68E-07	1.66
564690_4183830	564690	4183830	4.48E-03	4.13E-03	3.66E-03	0.00E+00	3.15E-03	5.42E-03	8.65E-04	1.82E-03	potential residence	6.08E-08	1.36E-06	2.69E-07	1.69
564710_4183830	564710	4183830	4.52E-03	4.17E-03	3.70E-03	0.00E+00	3.16E-03	5.43E-03	8.67E-04	1.82E-03	potential residence	6.13E-08	1.37E-06	2.70E-07	1.70

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Unmitigated								Receptor Type	$\sum R1 * C_{DPM}$			
			2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564730_4183830	564730	4183830	4.55E-03	4.20E-03	3.72E-03	0.00E+00	3.16E-03	5.43E-03	8.68E-04	1.82E-03	potential residence	6.17E-08	1.38E-06	2.70E-07	1.71
564750_4183830	564750	4183830	4.77E-03	4.40E-03	3.90E-03	0.00E+00	3.16E-03	5.42E-03	8.66E-04	1.82E-03	potential residence	6.47E-08	1.45E-06	2.71E-07	1.78
564770_4183830	564770	4183830	4.79E-03	4.42E-03	3.92E-03	0.00E+00	3.13E-03	5.38E-03	8.60E-04	1.81E-03	potential residence	6.50E-08	1.45E-06	2.69E-07	1.79
564790_4183830	564790	4183830	4.83E-03	4.45E-03	3.95E-03	0.00E+00	3.10E-03	5.32E-03	8.50E-04	1.79E-03	potential residence	6.55E-08	1.46E-06	2.66E-07	1.80
564810_4183830	564810	4183830	4.86E-03	4.48E-03	3.97E-03	0.00E+00	3.05E-03	5.24E-03	8.36E-04	1.76E-03	potential residence	6.59E-08	1.47E-06	2.63E-07	1.80
564830_4183830	564830	4183830	4.91E-03	4.53E-03	4.01E-03	0.00E+00	3.00E-03	5.16E-03	8.23E-04	1.73E-03	potential residence	6.65E-08	1.49E-06	2.59E-07	1.81
564850_4183830	564850	4183830	4.94E-03	4.56E-03	4.04E-03	0.00E+00	2.95E-03	5.06E-03	8.09E-04	1.70E-03	potential residence	6.70E-08	1.50E-06	2.55E-07	1.82
564870_4183830	564870	4183830	4.95E-03	4.57E-03	4.05E-03	0.00E+00	2.89E-03	4.96E-03	7.92E-04	1.67E-03	potential residence	6.71E-08	1.50E-06	2.50E-07	1.82
564890_4183830	564890	4183830	4.94E-03	4.56E-03	4.04E-03	0.00E+00	2.83E-03	4.87E-03	7.77E-04	1.63E-03	potential residence	6.70E-08	1.50E-06	2.46E-07	1.81
564910_4183830	564910	4183830	4.87E-03	4.49E-03	3.98E-03	0.00E+00	2.76E-03	4.74E-03	7.56E-04	1.59E-03	potential residence	6.61E-08	1.48E-06	2.40E-07	1.78
564930_4183830	564930	4183830	4.83E-03	4.46E-03	3.95E-03	0.00E+00	2.69E-03	4.63E-03	7.38E-04	1.55E-03	potential residence	6.55E-08	1.47E-06	2.34E-07	1.77
564510_4183850	564510	4183850	3.05E-03	2.81E-03	2.49E-03	0.00E+00	2.53E-03	4.34E-03	6.93E-04	1.46E-03	School	4.13E-08	9.24E-07	2.13E-07	1.18
564530_4183850	564530	4183850	3.16E-03	2.92E-03	2.58E-03	0.00E+00	2.56E-03	4.40E-03	7.03E-04	1.48E-03	School	4.29E-08	9.59E-07	2.16E-07	1.22
564550_4183850	564550	4183850	3.30E-03	3.04E-03	2.70E-03	0.00E+00	2.62E-03	4.50E-03	7.18E-04	1.51E-03	School	4.48E-08	1.00E-06	2.22E-07	1.27
564570_4183850	564570	4183850	3.40E-03	3.14E-03	2.78E-03	0.00E+00	2.63E-03	4.53E-03	7.23E-04	1.52E-03	potential residence	4.61E-08	1.03E-06	2.23E-07	1.30
564590_4183850	564590	4183850	3.49E-03	3.22E-03	2.85E-03	0.00E+00	2.63E-03	4.52E-03	7.22E-04	1.52E-03	potential residence	4.73E-08	1.06E-06	2.23E-07	1.33
564610_4183850	564610	4183850	3.57E-03	3.30E-03	2.92E-03	0.00E+00	2.63E-03	4.51E-03	7.21E-04	1.52E-03	potential residence	4.85E-08	1.08E-06	2.23E-07	1.36
564630_4183850	564630	4183850	3.67E-03	3.39E-03	3.00E-03	0.00E+00	2.64E-03	4.53E-03	7.23E-04	1.52E-03	potential residence	4.98E-08	1.11E-06	2.25E-07	1.39
564650_4183850	564650	4183850	3.77E-03	3.48E-03	3.08E-03	0.00E+00	2.66E-03	4.56E-03	7.28E-04	1.53E-03	potential residence	5.12E-08	1.14E-06	2.27E-07	1.42
564670_4183850	564670	4183850	3.87E-03	3.57E-03	3.17E-03	0.00E+00	2.76E-03	4.75E-03	7.58E-04	1.59E-03	potential residence	5.25E-08	1.17E-06	2.36E-07	1.46
564690_4183850	564690	4183850	3.96E-03	3.65E-03	3.23E-03	0.00E+00	2.79E-03	4.79E-03	7.64E-04	1.61E-03	potential residence	5.36E-08	1.20E-06	2.38E-07	1.49
564710_4183850	564710	4183850	3.98E-03	3.67E-03	3.25E-03	0.00E+00	2.79E-03	4.80E-03	7.66E-04	1.61E-03	potential residence	5.39E-08	1.21E-06	2.38E-07	1.50
564730_4183850	564730	4183850	4.00E-03	3.68E-03	3.27E-03	0.00E+00	2.80E-03	4.81E-03	7.68E-04	1.62E-03	potential residence	5.42E-08	1.21E-06	2.39E-07	1.51
564750_4183850	564750	4183850	4.17E-03	3.85E-03	3.41E-03	0.00E+00	2.80E-03	4.81E-03	7.68E-04	1.62E-03	potential residence	5.66E-08	1.27E-06	2.40E-07	1.56
564770_4183850	564770	4183850	4.19E-03	3.86E-03	3.42E-03	0.00E+00	2.79E-03	4.79E-03	7.64E-04	1.61E-03	potential residence	5.68E-08	1.27E-06	2.39E-07	1.57
564790_4183850	564790	4183850	4.21E-03	3.88E-03	3.44E-03	0.00E+00	2.76E-03	4.75E-03	7.58E-04	1.59E-03	potential residence	5.71E-08	1.28E-06	2.37E-07	1.57
564810_4183850	564810	4183850	4.24E-03	3.91E-03	3.46E-03	0.00E+00	2.72E-03	4.68E-03	7.47E-04	1.57E-03	potential residence	5.75E-08	1.29E-06	2.34E-07	1.58
564830_4183850	564830	4183850	4.27E-03	3.94E-03	3.49E-03	0.00E+00	2.68E-03	4.61E-03	7.36E-04	1.55E-03	potential residence	5.80E-08	1.30E-06	2.31E-07	1.59
564850_4183850	564850	4183850	4.31E-03	3.97E-03	3.52E-03	0.00E+00	2.64E-03	4.54E-03	7.24E-04	1.52E-03	potential residence	5.84E-08	1.31E-06	2.28E-07	1.59
564870_4183850	564870	4183850	4.33E-03	3.99E-03	3.54E-03	0.00E+00	2.60E-03	4.46E-03	7.12E-04	1.50E-03	potential residence	5.87E-08	1.31E-06	2.24E-07	1.60
564890_4183850	564890	4183850	4.33E-03	3.99E-03	3.54E-03	0.00E+00	2.55E-03	4.38E-03	6.99E-04	1.47E-03	potential residence	5.87E-08	1.31E-06	2.21E-07	1.59
564910_4183850	564910	4183850	4.30E-03	3.96E-03	3.51E-03	0.00E+00	2.50E-03	4.29E-03	6.85E-04	1.44E-03	potential residence	5.83E-08	1.30E-06	2.16E-07	1.58
564550_4183870	564550	4183870	2.99E-03	2.76E-03	2.45E-03	0.00E+00	2.35E-03	4.03E-03	6.44E-04	1.35E-03	School	4.06E-08	9.08E-07	1.99E-07	1.15
564570_4183870	564570	4183870	3.06E-03	2.82E-03	2.50E-03	0.00E+00	2.35E-03	4.03E-03	6.44E-04	1.35E-03	potential residence	4.15E-08	9.28E-07	1.99E-07	1.17
564590_4183870	564590	4183870	3.13E-03	2.88E-03	2.56E-03	0.00E+00	2.34E-03	4.02E-03	6.43E-04	1.35E-03	potential residence	4.24E-08	9.49E-07	1.99E-07	1.19
564610_4183870	564610	4183870	3.19E-03	2.94E-03	2.61E-03	0.00E+00	2.33E-03	4.01E-03	6.40E-04	1.35E-03	potential residence	4.33E-08	9.69E-07	1.98E-07	1.21
564630_4183870	564630	4183870	3.27E-03	3.02E-03	2.68E-03	0.00E+00	2.34E-03	4.02E-03	6.41E-04	1.35E-03	potential residence	4.44E-08	9.93E-07	1.99E-07	1.24
564650_4183870	564650	4183870	3.35E-03	3.09E-03	2.74E-03	0.00E+00	2.35E-03	4.04E-03	6.44E-04	1.36E-03	potential residence	4.55E-08	1.02E-06	2.00E-07	1.26
564670_4183870	564670	4183870	3.44E-03	3.17E-03	2.81E-03	0.00E+00	2.38E-03	4.09E-03	6.53E-04	1.37E-03	potential residence	4.66E-08	1.04E-06	2.03E-07	1.29
564690_4183870	564690	4183870	3.52E-03	3.24E-03	2.87E-03	0.00E+00	2.48E-03	4.26E-03	6.79E-04	1.43E-03	potential residence	4.77E-08	1.07E-06	2.11E-07	1.33
564710_4183870	564710	4183870	3.54E-03	3.26E-03	2.89E-03	0.00E+00	2.49E-03	4.28E-03	6.83E-04	1.44E-03	potential residence	4.80E-08	1.07E-06	2.13E-07	1.33
564730_4183870	564730	4183870	3.54E-03	3.27E-03	2.90E-03	0.00E+00	2.50E-03	4.29E-03	6.85E-04	1.44E-03	potential residence	4.80E-08	1.07E-06	2.13E-07	1.34
564750_4183870	564750	4183870	3.69E-03	3.40E-03	3.01E-03	0.00E+00	2.50E-03	4.30E-03	6.86E-04	1.44E-03	potential residence	5.00E-08	1.12E-06	2.14E-07	1.38
564770_4183870	564770	4183870	3.69E-03	3.40E-03	3.01E-03	0.00E+00	2.49E-03	4.28E-03	6.83E-04	1.44E-03	potential residence	5.00E-08	1.12E-06	2.13E-07	1.38
564790_4183870	564790	4183870	3.70E-03	3.41E-03	3.02E-03	0.00E+00	2.47E-03	4.25E-03	6.78E-04	1.43E-03	potential residence	5.02E-08	1.12E-06	2.12E-07	1.38
564810_4183870	564810	4183870	3.74E-03	3.45E-03	3.06E-03	0.00E+00	2.45E-03	4.21E-03	6.73E-04	1.41E-03	potential residence	5.07E-08	1.13E-06	2.10E-07	1.40
564830_4183870	564830	4183870	3.77E-03	3.47E-03	3.08E-03	0.00E+00	2.42E-03	4.16E-03	6.63E-04	1.40E-03	potential residence	5.11E-08	1.14E-06	2.08E-07	1.40
564850_4183870	564850	4183870	3.79E-03	3.50E-03	3.10E-03	0.00E+00	2.38E-03	4.09E-03	6.53E-04	1.37E-03	potential residence	5.14E-08	1.15E-06	2.05E-07	1.41
564870_4183870	564870	4183870	3.82E-03	3.52E-03	3.12E-03	0.00E+00	2.35E-03	4.03E-03	6.44E-04	1.35E-03	potential residence	5.18E-08	1.16E-06	2.03E-07	1.41
564590_4183890	564590	4183890	2.82E-03	2.60E-03	2.31E-03	0.00E+00	2.10E-03	3.61E-03	5.77E-04	1.21E-03	potential residence	3.83E-08	8.56E-07	1.79E-07	1.07
564610_4183890	564610	4183890	2.88E-03	2.66E-03	2.36E-03	0.00E+00	2.10E-03	3.60E-03	5.75E-04	1.21E-03	potential residence	3.91E-08	8.75E-07	1.78E-07	1.09
564630_4183890	564630	4183890	2.95E-03	2.72E-03	2.41E-03	0.00E+00	2.10E-03	3.60E-03	5.75E-04	1.21E-03	potential residence	4.01E-08	8.96E-07	1.79E-07	1.11
564650_4183890	564650	4183890	3.04E-03	2.81E-03	2.49E-03	0.00E+00	2.19E-03	3.77E-03	6.01E-04	1.26E-03	potential residence	4.13E-08	9.23E-07	1.87E-07	1.15
564670_4183890	564670	4183890	3.09E-03	2.85E-03	2.53E-03	0.00E+00	2.19E-03	3.77E-03	6.02E-04	1.27E-03	potential residence	4.19E-08	9.38E-07	1.87E-07	1.17
564690_4183890	564690	4183890	3.14E-03	2.90E-03	2.57E-03	0.00E+00	2.21E-03	3.81E-03	6.08E-04	1.28E-03	potential residence	4.26E-08	9.53E-07	1.89E-07	1.19
564710_4183890	564710	4183890	3.16E-03	2.91E-03	2.58E-03	0.00E+00	2.23E-03	3.83E-03	6.11E-04	1.29E-03	potential residence	4.28E-08	9.57E-07	1.90E-07	1.19
564730_4183890	564730	4183890	3.15E-03	2.91E-03	2.58E-03	0.00E+00	2.24E-03	3.85E-03	6.14E-04	1.29E-03	potential residence	4.27E-08	9.56E-07	1.91E-07	1.19
564750_4183890	564750	4183890	3.27E-03	3.01E-03	2.67E-03	0.00E+00	2.24E-03	3.85E-03	6.15E-04	1.29E-03	potential residence	4.43E-08	9.92E-07	1.92E-07	1.23
564770_4183890	564770	4183890	3.27E-03	3.01E-03	2.67E-03	0.00E+00	2.24E-03	3.84E-03	6.14E-04	1.29E-03	potential residence	4.43E-08	9.92E-07	1.91E-07	1.23
564790_4183890	564790	4183890	3.29E-03	3.03E-03	2.69E-03	0.00E+00	2.23E-03	3.83E-03	6.12E-04	1.29E-03	potential residence	4.46E-08	9.98E-07	1.91E-07	1.23
564810_4183890	564810	4183890	3.32E-03	3.06E-03	2.71E-03	0.00E+00	2.22E-03	3.81E-03	6.08E-04	1.28E-03	potential residence	4.50E-08	1.01E-06	1.90E-07	1.24
564830_4183890	564830	4183890	3.35E-03	3.09E-03	2.74E-03	0.00E+00	2.19E-03	3.77E-03	6.01E-04	1.26E-03	potential residence	4.54E-08	1.02E-06	1.88E-07	1.25
564850_4183890	564850	4183890	3.37E-03	3.11E-03	2.76E-03	0.00E+00	2.16E-03	3.71E-03	5.93E-04	1.25E-03	potential residence	4.57E-08	1.02E-06	1.86E-07	1.25
564630_4183910	564630	4183910	2.68E-03	2.47E-03	2.19E-03	0.00E+00	1.90E-03	3.26E-03	5.20E-04	1.09E-03	potential residence	3.64E-08	8.14E-07	1.62E-07	1.01
564650_4183910	564650	4183910	2.76E-03	2.54E-03	2.26E-03	0.00E+00	1.98E-03	3.40E-03	5.42E-04	1.14E-03	potential residence	3.74E-08	8.37E-07	1.68E-07	1.04
564670_4183910	564670	4183910	2.79E-03	2.58E-03	2.28E-03	0.00E+00	1.98E-03	3.40E-03	5.42E-04	1.14E-03	potential residence	3.79E-08	8.47E-07	1.69E-07	1.05
564690_4183910	564690	4183910	2.82E-03	2.60E-03	2.31E-03	0.00E+00	1.99E-03	3.42E-03	5.46E-04	1.15E-03	potential residence	3.83E-08	8.56E-07	1.70E-07	1.06
564710_4183910	564710	4183910	2.83E-03	2.61E-03	2.31E-03	0.00E+00	2.01E-03	3.45E-03	5.50E-04	1.16E-03	potential residence	3.84E-08	8.59E-07	1.71E-07	1.07
564730_4183910	564730	4183910	2.82E-03	2.60E-03	2.31E-03	0.00E+00	2.02E-03	3.46E-03	5.53E-04	1.16E-03	potential residence	3.82E-08	8.56E-07	1.72E-07	1.07
564750_4183910	564750	4183910	2.92E-03	2.69E-03	2.39E-03	0.00E+00	2.02E-03	3.47E-03	5.54E-04	1.17E-03	potential residence	3.96E-08	8.87E-07	1.73E-07	1.10
564770_4183910	564770	4183910	2.93E-03	2.70E-03	2.39E-03	0.00E+00	2.02E-03	3.48E-03	5.55E-04	1.17E-03	potential residence	3.97E-08	8.88E-07	1.73E-07	1.10
564790_4183910	564790	4183910	2.94E-03	2.71E-03	2.40E-03	0.00E+00	2.02E-03	3.47E-03	5.55E-04	1.17E-03	potential residence	3.99E-08	8.92E-07	1.73E-07	1.10
564810_4183910	564810	4183910	2.96E-03	2.73E-03	2.42E-03	0.00E+00	2.01E-03	3.45E-03	5.51E-04	1.16E-03	potential residence	4.02E-08	8.98E-07	1.72E-07	1.11
564610_4183910	564610	4183910	2.62E-03	2.41E-03	2.14E-03	0.00E+00	1.89E-03	3.25E-03	5.19E-04	1.09E-03	potential residence	3.55E-08	7.94E-07	1.61E-07	0.99
564590_4183910	564590	4183910	2.56E-03	2.36E-03	2.09E-03	0.00E+00	1.90E-03	3.27E-03	5.21E-04	1.10E-03	potential residence	3.47E-08	7.77E-07	1.62E-07	0.97
564570_4183910	564570	4183910	2.51E-03	2.31E-03	2.05E-03	0.00E+00	1.90E-03	3.27E-03	5.22E-04	1.10E-03	potential residence	3.40E-08	7.61E-07	1.62E-07	0.96
564550_4183910	564550	4183910	2.50E-03	2.30E-03	2.04E-03	0.00E+00	2.00E-03	3.44E-03	5.49E-04	1.15E-03	potential residence	3.39E-08	7.58E-07	1.69E-07	0.96
564530_4183910	564530	4183910	2.44E-03	2.25E-03	1.99E-03	0.00E+00	1.91E-03	3.29E-03	5.25E-04	1.10E-03	potential residence	3.31E-08	7.40E-07	1.62E-07	0.94
564510_4183910	564510	4183910	2.37E-03	2.19E-03	1.94E-03	0.00E+00	1.87E-03	3.21E-03	5.13E-04	1.08E-03	potential residence	3.21E-08	7.19E-07	1.58E-07	0.91
564490_4183910	564490	4183910	2.30E-03	2.12E-03	1.88E-03	0.00E+00	1.83E-03	3.15E-03	5.03E-04	1.06E-03	potential residence	3.12E-08	6.99E-07	1.55E-07	0.89
564470_4183910	564470	4183910	2.23E-03	2.05E-03	1.82E-03	0.00E+00	1.79E-03	3.08E-03	4.92E-04	1.03E-03	School	3.02E-08	6.76E-07	1.52E-07	0.86
564450_4183910	564450	4183910	2.14E-03	1.98E-03	1.75E-03	0.00E+00	1.76E-03	3.03E-03	4.83E-04	1.02E-03	School	2.91E-08	6.51E-07	1.49E-07	0.83
564430_4183910	564430	4183910	2.05E-03	1.89E-03	1.67E-03	0.00E+00	1.73E-03	2.96E-03	4.73E-04	9.95E-04	potential residence	2.78E-08	6.21E-07	1.45E-07	0.79
564410_4183910	564410	4183910	1.96E-03	1.80E-03	1.60E-03	0.00E+00	1.70E-03	2.93E-03	4.67E-04	9.82E-04	potential residence	2.65E-08	5.93E-07	1.43E-07	0.76
564390_4183910	564390	4183910	1.86E-03	1.72E-03	1.52E-03	0.00E+00	1.68E-03	2.88E-03	4.61E-04	9.69E-04	potential residence	2.52E-08	5.65E-07	1.41E-07	0.73
564370_4183910	564370	4183910	1.77E-03	1.63E-03	1.45E-03	0.00E+00	1.65E-03	2.84E-03	4.53E-04	9.53E-04	potential residence	2.40E-08	5.36E-07	1.38E-07	0.70
564350_4183910	564350	4183910	1.68E-03	1.55E-03	1.38E-03	0.00E+00	1.62E-03	2.79E-03	4.46E-04	9.37E-04	potential residence	2.28E-08	5.11E-07	1.36E-07	0.67
564570_4183890	564570	4183890	2.77E-03	2.55E-03	2.26E-03	0.00E+00	2.11E-03	3.63E-03	5.80E-04	1.22E-03	potential residence	3.76E-08	8.40E-07	1.79E-07	1.06
564550_4183890	564550	4183890	2.71E-03	2.50E-03	2.22E-03	0.00E+00	2.11E-03	3.62E-03	5.78E-04	1.22E-03	potential residence	3.68E-08	8.23E-07	1.78E-07	1.04
564530_4183890	564530	4183890	2.65E-03	2.45E-03	2.17E-03	0.00E+00	2.09E-03	3.60E-03	5.74E-04	1.21E-03	potential residence	3.60E-08	8.05E-07	1.77E-07	1.02
564510_4183890	564510	4183890	2.58E-03	2.38E-03	2.11E-03	0.00E+00	2.06E-03	3.53E-03	5.64E-04	1.19E-03	School	3.49E-08	7.82E-07	1.74E-07	0.99
564490_4183890	564490	4183890	2.48E-03	2.29E-03	2.03E-03	0.00E+00	2.00E-03	3.44E-03	5.50E-04	1.16E-03	School	3.37E-08	7.53E-07	1.69E-07	0.96
564470_4183890	564470	4183890	2.39E-03	2.20E-03	1.95E-03	0.00E+00	1.97E-03	3.38E-03	5.39E-04	1.13E-03	School	3.24E-08	7.25E-07	1.66E-07	0.92
564450_4183890	564450	4183890	2.29E-03	2.11E-03	1.87E-03	0.00E+00	1.94E-03	3.33E-03	5.31E-04	1.12E-03	School	3.11E-08	6.95E-07	1.63E-07	0.89
564430_4183890	564430	4183890	2.17E-03	2.00E-03	1.78E-03	0.00E+00	1.89E-03	3.25E-03	5.19E-04	1.09E-03	potential residence	2.95E-08	6.59E-07	1.59E-07	0.85
564410_4183890	564410	4183890	2.06E-03	1.90E-03	1.69E-03	0.00E+00	1.87E-03	3.21E-03	5.12E-04	1.08E-03	potential residence	2.80E-08	6.26E-07	1.57E-07	0.81
564390_4183890	564390	4183890	1.95E-03	1.80E-03	1.60E-03	0.00E+00	1.83E-03	3.15E-03	5.03E-04	1.06E-03	potential residence	2.65E-08	5.92E-07	1.54E-07	0.77
564370_4183890	564370	4183890	1.85E-03	1.71E-03	1.52E-03	0.00E+00	1.81E-03	3.10E-03	4.96E-04	1.04E-03	potential residence	2.52E-08	5.63E-07	1.51E-07	0.74
564350_4183890	564350	4183890	1.76E-03	1.62E-03	1.44E-03	0.00E+00	1.77E-03	3.04E-03	4.85E-04	1.02E-03	potential residence	2.38E-08	5.33E-07	1.47E-07	0.70
564530_4183870	564530	4183870	2.89E-03	2.67E-03	2.36E-03	0.00E+00	2.30E-03	3.96E-03	6.32E-04	1.33E-03	School	3.92E-08	8.77E-07	1.95E-07	1.11
564510_4183870	564510	4183870	2.79E-03	2.57E-03	2.28E-03	0.00E+00	2.26E-03	3.88E-03	6.19E-04	1.30E-03	School	3.78E-08	8.45E-07	1.91E-07	1.07
564490_4183870	564490	4183870	2.68E-03	2.47E-03	2.19E-03	0.00E+00	2.21E-03	3.80E-03	6.07E-04	1.28E-03	School	3.63E-08	8.13E-07	1.87E-07	1.04
564470_4183870	564470	4183870	2.56E-03	2.36E-03	2.10E-03	0.00E+00	2.17E-03	3.73E-03	5.96E-04	1.25E-03	School	3.48E-08	7.78E-07	1.83E-07	1.00
564450_4183870	564450	4183870	2.44E-03	2.25E-03	1.99E-03	0.00E+00	2.14E-03	3.67E-03	5.86E-04	1.23E-03	School	3.31E-08	7.40E-07	1.80E-07	0.95
564430_4183870	564430	4183870	2.31E-03	2.13E-03	1.88E-03	0.00E+00	2.09E-03	3.60E-03	5.75E-04	1.21E-03	School	3.13E-08	6.99E-07	1.76E-07	0.91
564410_4183870	564410	4183870	2.18E-03	2.01E-03	1.78E-03	0.00E+00	2.06E-03	3.54E-03	5.65E-04	1.19E-03	potential residence	2.95E-08	6.60E-07	1.72E-07	0.86
564390_4183870	564390	4183870	2.06E-03	1.90E-03	1.68E-03	0.00E+00	2.02E-03	3.48E-03	5.55E-04	1.17E-03	potential residence	2.79E-08	6.24E-07	1.69E-07	0.82
564370_4183870	564370	4183870	1.93E-03	1.78E-03	1.58E-03	0.00E+00	1.97E-03	3.39E-03	5.41E-04	1.14E-03	potential residence	2.62E-08	5.86E-07	1.64E-07	0.78
564350_4183870	564350	4183870	1.82E-03	1.68E-03	1.49E-03	0.00E+00	1.91E-03	3.29E-03	5.25E-04	1.10E-03	Daycare	2.47E-08	5.52E-07	1.59E-07	0.74
564330_4183870	564330	4183870	1.71E-03	1.58E-03	1.40E-03	0.00E+00	1.84E-03	3.16E-03	5.05E-04	1.06E-03	Daycare	2.32E-08	5.19E-07	1.53E-07	0.70

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

			Unmitigated								Receptor Type
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	
564490_4183850	564490	4183850	2.90E-03	2.67E-03	2.37E-03	0.00E+00	2.47E-03	4.24E-03	6.77E-04	1.42E-03	School
564470_4183850	564470	4183850	2.74E-03	2.53E-03	2.24E-03	0.00E+00	2.41E-03	4.14E-03	6.60E-04	1.39E-03	School
564450_4183850	564450	4183850	2.59E-03	2.39E-03	2.12E-03	0.00E+00	2.37E-03	4.07E-03	6.49E-04	1.37E-03	School
564430_4183850	564430	4183850	2.44E-03	2.25E-03	1.99E-03	0.00E+00	2.33E-03	4.00E-03	6.38E-04	1.34E-03	School
564410_4183850	564410	4183850	2.28E-03	2.11E-03	1.87E-03	0.00E+00	2.27E-03	3.91E-03	6.24E-04	1.31E-03	potential residence
564390_4183850	564390	4183850	2.14E-03	1.97E-03	1.75E-03	0.00E+00	2.22E-03	3.81E-03	6.08E-04	1.28E-03	potential residence
564370_4183850	564370	4183850	2.00E-03	1.84E-03	1.64E-03	0.00E+00	2.14E-03	3.68E-03	5.88E-04	1.24E-03	potential residence
564350_4183850	564350	4183850	1.87E-03	1.72E-03	1.53E-03	0.00E+00	2.06E-03	3.54E-03	5.65E-04	1.19E-03	Daycare
564330_4183850	564330	4183850	1.75E-03	1.62E-03	1.43E-03	0.00E+00	1.97E-03	3.39E-03	5.41E-04	1.14E-03	Daycare
564310_4183850	564310	4183850	1.66E-03	1.53E-03	1.35E-03	0.00E+00	1.89E-03	3.25E-03	5.18E-04	1.09E-03	Daycare
564450_4183830	564450	4183830	2.74E-03	2.53E-03	2.24E-03	0.00E+00	2.64E-03	4.54E-03	7.24E-04	1.52E-03	potential residence
564430_4183830	564430	4183830	2.56E-03	2.36E-03	2.09E-03	0.00E+00	2.58E-03	4.44E-03	7.09E-04	1.49E-03	potential residence
564410_4183830	564410	4183830	2.38E-03	2.20E-03	1.95E-03	0.00E+00	2.51E-03	4.32E-03	6.89E-04	1.45E-03	potential residence
564390_4183830	564390	4183830	2.22E-03	2.04E-03	1.81E-03	0.00E+00	2.42E-03	4.17E-03	6.65E-04	1.40E-03	potential residence
564370_4183830	564370	4183830	2.06E-03	1.90E-03	1.68E-03	0.00E+00	2.33E-03	4.00E-03	6.38E-04	1.34E-03	potential residence
564350_4183830	564350	4183830	1.93E-03	1.78E-03	1.57E-03	0.00E+00	2.22E-03	3.82E-03	6.10E-04	1.28E-03	Daycare
564330_4183830	564330	4183830	1.80E-03	1.66E-03	1.47E-03	0.00E+00	2.11E-03	3.62E-03	5.78E-04	1.22E-03	Daycare
564310_4183830	564310	4183830	1.70E-03	1.56E-03	1.39E-03	0.00E+00	2.01E-03	3.45E-03	5.52E-04	1.16E-03	Daycare
564430_4183810	564430	4183810	2.68E-03	2.47E-03	2.19E-03	0.00E+00	2.88E-03	4.95E-03	7.90E-04	1.66E-03	potential residence
564410_4183810	564410	4183810	2.49E-03	2.29E-03	2.03E-03	0.00E+00	2.79E-03	4.80E-03	7.66E-04	1.61E-03	potential residence
564390_4183810	564390	4183810	2.29E-03	2.11E-03	1.87E-03	0.00E+00	2.66E-03	4.57E-03	7.29E-04	1.53E-03	potential residence
564370_4183810	564370	4183810	2.13E-03	1.97E-03	1.74E-03	0.00E+00	2.54E-03	4.36E-03	6.97E-04	1.46E-03	potential residence
564350_4183810	564350	4183810	1.99E-03	1.83E-03	1.62E-03	0.00E+00	2.41E-03	4.14E-03	6.60E-04	1.39E-03	potential residence
564330_4183810	564330	4183810	1.86E-03	1.71E-03	1.52E-03	0.00E+00	2.27E-03	3.91E-03	6.24E-04	1.31E-03	Daycare
564390_4183790	564390	4183790	2.38E-03	2.20E-03	1.95E-03	0.00E+00	2.94E-03	5.05E-03	8.07E-04	1.70E-03	potential residence
564370_4183790	564370	4183790	2.21E-03	2.03E-03	1.80E-03	0.00E+00	2.77E-03	4.77E-03	7.61E-04	1.60E-03	potential residence
565230_4183390	565230	4183390	1.17E-02	1.08E-02	9.55E-03	0.00E+00	5.94E-03	1.02E-02	1.63E-03	3.43E-03	Daycare
565250_4183390	565250	4183390	1.09E-02	1.01E-02	8.93E-03	0.00E+00	5.63E-03	9.67E-03	1.54E-03	3.25E-03	Daycare
565230_4183370	565230	4183370	1.15E-02	1.06E-02	9.37E-03	0.00E+00	5.87E-03	1.01E-02	1.61E-03	3.39E-03	Daycare
565250_4183370	565250	4183370	1.07E-02	9.91E-03	8.78E-03	0.00E+00	5.56E-03	9.56E-03	1.53E-03	3.21E-03	Daycare
565230_4183350	565230	4183350	1.12E-02	1.04E-02	9.19E-03	0.00E+00	5.82E-03	1.00E-02	1.60E-03	3.36E-03	Daycare
565250_4183350	565250	4183350	1.06E-02	9.75E-03	8.65E-03	0.00E+00	5.52E-03	9.49E-03	1.52E-03	3.18E-03	Daycare

Risk Calculation Part 2

$\sum R1*C_{DPM}$			
3rd Trimester	0<2	2<16	Total
3.93E-08	8.79E-07	2.08E-07	1.13
3.71E-08	8.31E-07	2.02E-07	1.07
3.51E-08	7.86E-07	1.99E-07	1.02
3.31E-08	7.40E-07	1.95E-07	0.97
3.10E-08	6.93E-07	1.90E-07	0.91
2.90E-08	6.49E-07	1.85E-07	0.86
2.71E-08	6.07E-07	1.78E-07	0.81
2.54E-08	5.68E-07	1.71E-07	0.76
2.38E-08	5.32E-07	1.63E-07	0.72
2.25E-08	5.02E-07	1.57E-07	0.68
3.72E-08	8.32E-07	2.21E-07	1.09
3.47E-08	7.77E-07	2.15E-07	1.03
3.23E-08	7.23E-07	2.09E-07	0.96
3.00E-08	6.72E-07	2.01E-07	0.90
2.80E-08	6.25E-07	1.93E-07	0.85
2.61E-08	5.84E-07	1.84E-07	0.79
2.44E-08	5.45E-07	1.74E-07	0.74
2.30E-08	5.15E-07	1.66E-07	0.70
3.63E-08	8.13E-07	2.39E-07	1.09
3.38E-08	7.55E-07	2.32E-07	1.02
3.11E-08	6.95E-07	2.20E-07	0.95
2.89E-08	6.47E-07	2.10E-07	0.89
2.70E-08	6.03E-07	1.99E-07	0.83
2.52E-08	5.64E-07	1.88E-07	0.78
3.23E-08	7.23E-07	2.43E-07	1.00
2.99E-08	6.69E-07	2.29E-07	0.93
1.58E-07	3.54E-06	5.22E-07	4.22
1.48E-07	3.31E-06	4.93E-07	3.95
1.55E-07	3.48E-06	5.15E-07	4.15
1.46E-07	3.26E-06	4.87E-07	3.89
1.52E-07	3.41E-06	5.10E-07	4.07
1.43E-07	3.21E-06	4.83E-07	3.84

All Receptors - Construction Cancer Risk

Health Risk for Onsite (Block 1) Receptors

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Unmitigated DPM (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	0	0	0	306	4.99E-02	1.42E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	0	0	365	5.49E-02	5.60E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	0	0	228	3.04E-02	3.30E-04	5.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	0	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	91	270	0	361	4.54E-02	5.20E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	365	0	365	7.88E-02	1.12E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	95	271	366	1.26E-02	9.00E-05	9.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	3.19E-03	4.00E-05	0.00E+00

				Total Unmitigated DPM (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.71E-03	2.41E-06	1.52E-06
2023	1	1/1/2023	12/31/2023	1.58E-03	8.65E-07	5.45E-07
2024	1	1/1/2024	8/15/2024	1.40E-03	8.93E-07	5.63E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.32E-03	7.93E-07	5.00E-07
2027	2	1/1/2027	12/31/2027	2.27E-03	1.57E-06	9.87E-07
2028	2	1/1/2028	12/31/2028	3.62E-04	4.01E-07	2.53E-07
2029	2	1/1/2029	2/13/2029	7.61E-04	3.96E-07	2.50E-07

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	2<16
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572
Fraction Of Time At Home	FAH	unitless	1	1	1
Exposure Frequency	EF	days/year	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3
Inhalation Absorption Factor	A	unitless	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70

Intake Factor for Inhalation, IF (m^3/kg-day)

	Year	Equation	3rd Trimester	0<2	2<16
Phase 1 Construction	2022		0.000	0.000	0.000
	2023		0.000	0.000	0.000
	2024		0.000	0.000	0.000
Inactive	2025	DBR*FAH*EF*ED*ASF*A*CF/AT	0.000	0.000	0.000
Phase 2 Construction	2026		0.012	0.110	0.000
	2027		0.000	0.149	0.000
	2028		0.000	0.039	0.017
	2029		0.000	0.000	0.003

Risk Calculation Part 1, R1

Year		3rd Trimester	0<2	2<16
2022		0.00E+00	0.00E+00	0.00E+00
2023		0.00E+00	0.00E+00	0.00E+00
2024		0.00E+00	0.00E+00	0.00E+00
2025	IF*CPF*CF	0.00E+00	0.00E+00	0.00E+00
2026		1.36E-05	1.21E-04	0.00E+00
2027		0.00E+00	1.64E-04	0.00E+00
2028		0.00E+00	4.27E-05	1.92E-05
2029		0.00E+00	0.00E+00	3.12E-06

MAX	Cancer Risk	UTM X	UTM Y
Unmitigated	55.63	564710	4183530
receptor type	Building B		

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

			Unmitigated								Receptor Type
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	
564750_4183510	564750	4183510	1.91E-04	6.83E-05	7.05E-05	0.00E+00	8.18E-02	1.41E-01	2.25E-02	4.72E-02	Building B
564770_4183510	564770	4183510	1.41E-04	5.07E-05	5.23E-05	0.00E+00	6.62E-02	1.14E-01	1.82E-02	3.82E-02	Building B
564710_4183530	564710	4183530	1.83E-04	6.57E-05	6.78E-05	0.00E+00	1.28E-01	2.19E-01	3.50E-02	7.36E-02	Building B
564730_4183530	564730	4183530	1.37E-04	4.91E-05	5.06E-05	0.00E+00	9.85E-02	1.69E-01	2.70E-02	5.68E-02	Building B
564710_4183550	564710	4183550	1.05E-04	3.75E-05	3.87E-05	0.00E+00	1.02E-01	1.76E-01	2.80E-02	5.89E-02	Building B
564750_4183550	564750	4183550	7.44E-05	2.67E-05	2.75E-05	0.00E+00	6.73E-02	1.16E-01	1.85E-02	3.88E-02	Building A
564770_4183550	564770	4183550	6.41E-05	2.30E-05	2.37E-05	0.00E+00	5.59E-02	9.60E-02	1.53E-02	3.22E-02	Building A
564790_4183550	564790	4183550	5.68E-05	2.04E-05	2.10E-05	0.00E+00	4.76E-02	8.18E-02	1.31E-02	2.75E-02	Building A
564730_4183570	564730	4183570	6.12E-05	2.19E-05	2.27E-05	0.00E+00	6.17E-02	1.06E-01	1.69E-02	3.56E-02	Building A
564750_4183570	564750	4183570	5.40E-05	1.94E-05	2.00E-05	0.00E+00	5.26E-02	9.04E-02	1.44E-02	3.04E-02	Building A
564770_4183570	564770	4183570	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.55E-02	7.81E-02	1.25E-02	2.62E-02	Building A
564730_4183590	564730	4183590	4.42E-05	1.58E-05	1.64E-05	0.00E+00	4.34E-02	7.46E-02	1.19E-02	2.51E-02	Building A

Risk Calculation Part 2

$\sum R1 * C_{DPM}$			
3rd Trimester	0<2	2<16	Total
1.11E-06	3.40E-05	5.78E-07	35.69
8.98E-07	2.75E-05	4.68E-07	28.89
1.73E-06	5.30E-05	9.01E-07	55.63
1.34E-06	4.09E-05	6.96E-07	42.93
1.39E-06	4.24E-05	7.22E-07	44.55
9.13E-07	2.80E-05	4.75E-07	29.35
7.58E-07	2.32E-05	3.95E-07	24.37
6.46E-07	1.98E-05	3.36E-07	20.76
8.37E-07	2.56E-05	4.36E-07	26.90
7.14E-07	2.19E-05	3.72E-07	22.95
6.16E-07	1.89E-05	3.21E-07	19.82
5.89E-07	1.80E-05	3.07E-07	18.94

All Receptors - Construction Hazard Index

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Unmitigated DPM (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	91	215	0	306	4.99E-02	1.42E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	365	0	365	5.49E-02	5.60E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	150	78	228	3.04E-02	3.30E-04	5.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	507	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	0	0	361	361	4.54E-02	5.20E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	0	365	365	7.88E-02	1.12E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	0	366	366	1.26E-02	9.00E-05	9.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	3.19E-03	4.00E-05	0.00E+00

				Total Unmitigated DPM (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.71E-03	2.41E-06	1.52E-06
2023	1	1/1/2023	12/31/2023	1.58E-03	8.65E-07	5.45E-07
2024	1	1/1/2024	8/15/2024	1.40E-03	8.93E-07	5.63E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.32E-03	7.93E-07	5.00E-07
2027	2	1/1/2027	12/31/2027	2.27E-03	1.57E-06	9.87E-07
2028	2	1/1/2028	12/31/2028	3.62E-04	4.01E-07	2.53E-07
2029	2	1/1/2029	2/13/2029	7.61E-04	3.96E-07	2.50E-07

Risk Factors

	Abbreviation	UOM	
Chronic Inhalation	REL	ug/m^3	5

MAX	HI	UTM X	UTM Y
Unmitigated	0.08	564650	4183490
receptor type	potential residence		

MAX	HI	UTM X	UTM Y
Unmitigated	0.04	564710	4183530
receptor type	Building B		

Unmitigated HI Risk

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

			Unmitigated								Receptor Type	C_{DPM}/REL		
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564550_418317C	564550	4183170	2.42E-03	2.23E-03	1.98E-03	0.00E+00	2.60E-03	4.46E-03	7.13E-04	1.50E-03	potential residence	0.00	2027	0.00
564570_418317C	564570	4183170	2.49E-03	2.30E-03	2.04E-03	0.00E+00	2.71E-03	4.66E-03	7.44E-04	1.56E-03	potential residence	0.00	2027	0.00
564590_418317C	564590	4183170	2.56E-03	2.36E-03	2.09E-03	0.00E+00	2.83E-03	4.85E-03	7.75E-04	1.63E-03	potential residence	0.00	2027	0.00
564610_418317C	564610	4183170	2.63E-03	2.42E-03	2.15E-03	0.00E+00	2.94E-03	5.06E-03	8.07E-04	1.70E-03	potential residence	0.01	2027	0.00
564630_418317C	564630	4183170	2.72E-03	2.50E-03	2.22E-03	0.00E+00	3.09E-03	5.30E-03	8.47E-04	1.78E-03	potential residence	0.01	2027	0.00
564650_418317C	564650	4183170	2.81E-03	2.59E-03	2.30E-03	0.00E+00	3.25E-03	5.58E-03	8.91E-04	1.87E-03	potential residence	0.01	2027	0.00
564670_418317C	564670	4183170	2.92E-03	2.69E-03	2.38E-03	0.00E+00	3.42E-03	5.88E-03	9.38E-04	1.97E-03	potential residence	0.01	2027	0.00
564690_418317C	564690	4183170	3.03E-03	2.79E-03	2.48E-03	0.00E+00	3.61E-03	6.20E-03	9.90E-04	2.08E-03	potential residence	0.01	2027	0.00
564510_418319C	564510	4183190	2.47E-03	2.28E-03	2.02E-03	0.00E+00	2.64E-03	4.53E-03	7.24E-04	1.52E-03	potential residence	0.00	2027	0.00
564530_418319C	564530	4183190	2.55E-03	2.35E-03	2.08E-03	0.00E+00	2.74E-03	4.71E-03	7.52E-04	1.58E-03	potential residence	0.00	2027	0.00
564550_418319C	564550	4183190	2.62E-03	2.41E-03	2.14E-03	0.00E+00	2.85E-03	4.90E-03	7.83E-04	1.65E-03	potential residence	0.00	2027	0.00
564570_418319C	564570	4183190	2.70E-03	2.49E-03	2.21E-03	0.00E+00	2.98E-03	5.12E-03	8.18E-04	1.72E-03	potential residence	0.01	2027	0.00
564590_418319C	564590	4183190	2.78E-03	2.56E-03	2.27E-03	0.00E+00	3.12E-03	5.36E-03	8.56E-04	1.80E-03	potential residence	0.01	2027	0.00
564610_418319C	564610	4183190	2.87E-03	2.64E-03	2.34E-03	0.00E+00	3.27E-03	5.61E-03	8.97E-04	1.88E-03	potential residence	0.01	2027	0.00
564630_418319C	564630	4183190	2.96E-03	2.72E-03	2.42E-03	0.00E+00	3.43E-03	5.89E-03	9.41E-04	1.98E-03	potential residence	0.01	2027	0.00
564650_418319C	564650	4183190	3.07E-03	2.82E-03	2.50E-03	0.00E+00	3.62E-03	6.22E-03	9.94E-04	2.09E-03	potential residence	0.01	2027	0.00
564670_418319C	564670	4183190	3.18E-03	2.93E-03	2.60E-03	0.00E+00	3.82E-03	6.56E-03	1.05E-03	2.20E-03	potential residence	0.01	2027	0.00
564690_418319C	564690	4183190	3.30E-03	3.04E-03	2.70E-03	0.00E+00	4.03E-03	6.93E-03	1.11E-03	2.33E-03	potential residence	0.01	2027	0.00
564710_418319C	564710	4183190	3.45E-03	3.17E-03	2.81E-03	0.00E+00	4.28E-03	7.35E-03	1.17E-03	2.47E-03	potential residence	0.01	2027	0.00
564730_418319C	564730	4183190	3.59E-03	3.31E-03	2.93E-03	0.00E+00	4.51E-03	7.76E-03	1.24E-03	2.60E-03	potential residence	0.01	2027	0.00
564470_418321C	564470	4183210	2.50E-03	2.30E-03	2.04E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	potential residence	0.00	2027	0.00
564490_418321C	564490	4183210	2.59E-03	2.38E-03	2.11E-03	0.00E+00	2.80E-03	4.81E-03	7.69E-04	1.62E-03	potential residence	0.00	2027	0.00
564510_418321C	564510	4183210	2.67E-03	2.46E-03	2.18E-03	0.00E+00	2.91E-03	5.00E-03	7.98E-04	1.68E-03	potential residence	0.00	2027	0.00
564530_418321C	564530	4183210	2.76E-03	2.55E-03	2.26E-03	0.00E+00	3.03E-03	5.20E-03	8.30E-04	1.75E-03	potential residence	0.01	2027	0.00
564550_418321C	564550	4183210	2.85E-03	2.63E-03	2.33E-03	0.00E+00	3.15E-03	5.42E-03	8.66E-04	1.82E-03	potential residence	0.01	2027	0.00
564570_418321C	564570	4183210	2.94E-03	2.70E-03	2.40E-03	0.00E+00	3.30E-03	5.66E-03	9.05E-04	1.90E-03	potential residence	0.01	2027	0.00
564590_418321C	564590	4183210	3.03E-03	2.79E-03	2.48E-03	0.00E+00	3.46E-03	5.95E-03	9.51E-04	2.00E-03	potential residence	0.01	2027	0.00
564610_418321C	564610	4183210	3.13E-03	2.88E-03	2.56E-03	0.00E+00	3.64E-03	6.26E-03	1.00E-03	2.10E-03	potential residence	0.01	2027	0.00
564630_418321C	564630	4183210	3.23E-03	2.98E-03	2.64E-03	0.00E+00	3.84E-03	6.59E-03	1.05E-03	2.21E-03	potential residence	0.01	2027	0.00
564650_418321C	564650	4183210	3.35E-03	3.09E-03	2.74E-03	0.00E+00	4.06E-03	6.97E-03	1.11E-03	2.34E-03	potential residence	0.01	2027	0.00
564670_418321C	564670	4183210	3.48E-03	3.20E-03	2.84E-03	0.00E+00	4.29E-03	7.37E-03	1.18E-03	2.47E-03	potential residence	0.01	2027	0.00
564690_418321C	564690	4183210	3.63E-03	3.34E-03	2.96E-03	0.00E+00	4.57E-03	7.85E-03	1.25E-03	2.64E-03	potential residence	0.01	2027	0.00
564430_418323C	564430	4183230	2.48E-03	2.29E-03	2.03E-03	0.00E+00	2.78E-03	4.78E-03	7.64E-04	1.61E-03	potential residence	0.00	2027	0.00
564450_418323C	564450	4183230	2.59E-03	2.38E-03	2.11E-03	0.00E+00	2.88E-03	4.96E-03	7.92E-04	1.66E-03	potential residence	0.00	2027	0.00
564470_418323C	564470	4183230	2.69E-03	2.48E-03	2.20E-03	0.00E+00	2.99E-03	5.14E-03	8.21E-04	1.73E-03	potential residence	0.01	2027	0.00
564490_418323C	564490	4183230	2.80E-03	2.58E-03	2.28E-03	0.00E+00	3.10E-03	5.33E-03	8.51E-04	1.79E-03	potential residence	0.01	2027	0.00
564510_418323C	564510	4183230	2.90E-03	2.67E-03	2.37E-03	0.00E+00	3.22E-03	5.54E-03	8.85E-04	1.86E-03	potential residence	0.01	2027	0.00
564530_418323C	564530	4183230	3.01E-03	2.77E-03	2.46E-03	0.00E+00	3.36E-03	5.77E-03	9.21E-04	1.94E-03	potential residence	0.01	2027	0.00
564550_418323C	564550	4183230	3.11E-03	2.87E-03	2.54E-03	0.00E+00	3.51E-03	6.03E-03	9.64E-04	2.03E-03	potential residence	0.01	2027	0.00
564570_418323C	564570	4183230	3.22E-03	2.96E-03	2.63E-03	0.00E+00	3.68E-03	6.33E-03	1.01E-03	2.12E-03	potential residence	0.01	2027	0.00
564590_418323C	564590	4183230	3.32E-03	3.06E-03	2.71E-03	0.00E+00	3.87E-03	6.66E-03	1.06E-03	2.24E-03	potential residence	0.01	2027	0.00
564610_418323C	564610	4183230	3.44E-03	3.16E-03	2.81E-03	0.00E+00	4.09E-03	7.02E-03	1.12E-03	2.36E-03	potential residence	0.01	2027	0.00
564630_418323C	564630	4183230	3.56E-03	3.27E-03	2.90E-03	0.00E+00	4.32E-03	7.43E-03	1.19E-03	2.50E-03	potential residence	0.01	2027	0.00
564650_418323C	564650	4183230	3.69E-03	3.40E-03	3.01E-03	0.00E+00	4.59E-03	7.89E-03	1.26E-03	2.65E-03	potential residence	0.01	2027	0.00
564670_418323C	564670	4183230	3.84E-03	3.54E-03	3.14E-03	0.00E+00	4.89E-03	8.40E-03	1.34E-03	2.82E-03	potential residence	0.01	2027	0.00
564390_418325C	564390	4183250	2.42E-03	2.23E-03	1.98E-03	0.00E+00	2.83E-03	4.86E-03	7.76E-04	1.63E-03	potential residence	0.00	2027	0.00
564410_418325C	564410	4183250	2.54E-03	2.34E-03	2.07E-03	0.00E+00	2.95E-03	5.08E-03	8.11E-04	1.70E-03	potential residence	0.01	2027	0.00
564430_418325C	564430	4183250	2.66E-03	2.45E-03	2.17E-03	0.00E+00	3.08E-03	5.29E-03	8.45E-04	1.78E-03	potential residence	0.01	2027	0.00
564450_418325C	564450	4183250	2.78E-03	2.56E-03	2.27E-03	0.00E+00	3.20E-03	5.50E-03	8.78E-04	1.85E-03	potential residence	0.01	2027	0.00
564470_418325C	564470	4183250	2.91E-03	2.68E-03	2.37E-03	0.00E+00	3.32E-03	5.71E-03	9.13E-04	1.92E-03	potential residence	0.01	2027	0.00
564490_418325C	564490	4183250	3.03E-03	2.79E-03	2.48E-03	0.00E+00	3.45E-03	5.94E-03	9.48E-04	1.99E-03	potential residence	0.01	2027	0.00
564510_418325C	564510	4183250	3.16E-03	2.91E-03	2.58E-03	0.00E+00	3.60E-03	6.18E-03	9.87E-04	2.07E-03	potential residence	0.01	2027	0.00
564530_418325C	564530	4183250	3.29E-03	3.03E-03	2.68E-03	0.00E+00	3.76E-03	6.45E-03	1.03E-03	2.17E-03	potential residence	0.01	2027	0.00
564550_418325C	564550	4183250	3.41E-03	3.14E-03	2.79E-03	0.00E+00	3.94E-03	6.76E-03	1.08E-03	2.27E-03	potential residence	0.01	2027	0.00
564570_418325C	564570	4183250	3.54E-03	3.26E-03	2.89E-03	0.00E+00	4.14E-03	7.11E-03	1.14E-03	2.39E-03	potential residence	0.01	2027	0.00
564590_418325C	564590	4183250	3.67E-03	3.38E-03	2.99E-03	0.00E+00	4.37E-03	7.52E-03	1.20E-03	2.52E-03	potential residence	0.01	2027	0.00
564610_418325C	564610	4183250	3.80E-03	3.50E-03	3.10E-03	0.00E+00	4.64E-03	7.97E-03	1.27E-03	2.68E-03	potential residence	0.01	2027	0.00
564630_418325C	564630	4183250	3.94E-03	3.63E-03	3.22E-03	0.00E+00	4.93E-03	8.48E-03	1.35E-03	2.85E-03	potential residence	0.01	2027	0.00
564650_418325C	564650	4183250	4.09E-03	3.76E-03	3.34E-03	0.00E+00	5.25E-03	9.02E-03	1.44E-03	3.03E-03	potential residence	0.01	2027	0.00
564350_418327C	564350	4183270	2.31E-03	2.13E-03	1.89E-03	0.00E+00	2.81E-03	4.83E-03	7.71E-04	1.62E-03	potential residence	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Unmitigated HI Risk

Lookup	X (UTM)	Y (UTM	Unmitigated								Receptor Type	C_{DPM}/REL		
			2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564370_4183270	564370	4183270	2.44E-03	2.25E-03	1.99E-03	0.00E+00	2.96E-03	5.09E-03	8.13E-04	1.71E-03	potential residence	0.01	2027	0.00
564390_4183270	564390	4183270	2.57E-03	2.37E-03	2.10E-03	0.00E+00	3.12E-03	5.36E-03	8.55E-04	1.80E-03	potential residence	0.01	2027	0.00
564410_4183270	564410	4183270	2.70E-03	2.49E-03	2.21E-03	0.00E+00	3.27E-03	5.61E-03	8.96E-04	1.88E-03	potential residence	0.01	2027	0.00
564430_4183270	564430	4183270	2.85E-03	2.62E-03	2.32E-03	0.00E+00	3.42E-03	5.88E-03	9.39E-04	1.97E-03	potential residence	0.01	2027	0.00
564450_4183270	564450	4183270	2.99E-03	2.75E-03	2.44E-03	0.00E+00	3.57E-03	6.13E-03	9.79E-04	2.06E-03	potential residence	0.01	2027	0.00
564470_4183270	564470	4183270	3.15E-03	2.90E-03	2.57E-03	0.00E+00	3.73E-03	6.41E-03	1.02E-03	2.15E-03	potential residence	0.01	2027	0.00
564490_4183270	564490	4183270	3.30E-03	3.04E-03	2.69E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.24E-03	potential residence	0.01	2027	0.00
564510_4183270	564510	4183270	3.46E-03	3.19E-03	2.82E-03	0.00E+00	4.07E-03	6.99E-03	1.12E-03	2.35E-03	potential residence	0.01	2027	0.00
564530_4183270	564530	4183270	3.60E-03	3.31E-03	2.94E-03	0.00E+00	4.23E-03	7.27E-03	1.16E-03	2.44E-03	potential residence	0.01	2027	0.00
564550_4183270	564550	4183270	3.76E-03	3.46E-03	3.07E-03	0.00E+00	4.45E-03	7.64E-03	1.22E-03	2.57E-03	potential residence	0.01	2027	0.00
564570_4183270	564570	4183270	3.91E-03	3.60E-03	3.19E-03	0.00E+00	4.70E-03	8.08E-03	1.29E-03	2.71E-03	potential residence	0.01	2027	0.00
564590_4183270	564590	4183270	4.07E-03	3.75E-03	3.32E-03	0.00E+00	5.00E-03	8.59E-03	1.37E-03	2.89E-03	potential residence	0.01	2027	0.00
564610_4183270	564610	4183270	4.22E-03	3.89E-03	3.45E-03	0.00E+00	5.31E-03	9.12E-03	1.46E-03	3.06E-03	potential residence	0.01	2027	0.00
564310_4183290	564310	4183290	2.17E-03	2.00E-03	1.77E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	potential residence	0.00	2027	0.00
564330_4183290	564330	4183290	2.30E-03	2.12E-03	1.88E-03	0.00E+00	2.88E-03	4.94E-03	7.90E-04	1.66E-03	potential residence	0.00	2027	0.00
564350_4183290	564350	4183290	2.43E-03	2.24E-03	1.98E-03	0.00E+00	3.06E-03	5.26E-03	8.40E-04	1.76E-03	potential residence	0.01	2027	0.00
564370_4183290	564370	4183290	2.57E-03	2.37E-03	2.10E-03	0.00E+00	3.24E-03	5.58E-03	8.91E-04	1.87E-03	potential residence	0.01	2027	0.00
564390_4183290	564390	4183290	2.72E-03	2.50E-03	2.22E-03	0.00E+00	3.43E-03	5.90E-03	9.42E-04	1.98E-03	potential residence	0.01	2027	0.00
564410_4183290	564410	4183290	2.88E-03	2.65E-03	2.35E-03	0.00E+00	3.62E-03	6.23E-03	9.95E-04	2.09E-03	potential residence	0.01	2027	0.00
564430_4183290	564430	4183290	3.04E-03	2.80E-03	2.48E-03	0.00E+00	3.82E-03	6.56E-03	1.05E-03	2.20E-03	potential residence	0.01	2027	0.00
564450_4183290	564450	4183290	3.22E-03	2.97E-03	2.63E-03	0.00E+00	4.03E-03	6.92E-03	1.10E-03	2.32E-03	potential residence	0.01	2027	0.00
564470_4183290	564470	4183290	3.40E-03	3.13E-03	2.78E-03	0.00E+00	4.21E-03	7.24E-03	1.16E-03	2.43E-03	potential residence	0.01	2027	0.00
564490_4183290	564490	4183290	3.59E-03	3.31E-03	2.93E-03	0.00E+00	4.42E-03	7.59E-03	1.21E-03	2.55E-03	potential residence	0.01	2027	0.00
564510_4183290	564510	4183290	3.79E-03	3.49E-03	3.09E-03	0.00E+00	4.63E-03	7.96E-03	1.27E-03	2.67E-03	potential residence	0.01	2027	0.00
564530_4183290	564530	4183290	3.96E-03	3.65E-03	3.23E-03	0.00E+00	4.82E-03	8.29E-03	1.32E-03	2.78E-03	potential residence	0.01	2027	0.00
564550_4183290	564550	4183290	4.15E-03	3.82E-03	3.39E-03	0.00E+00	5.08E-03	8.72E-03	1.39E-03	2.93E-03	potential residence	0.01	2027	0.00
564570_4183290	564570	4183290	4.34E-03	4.00E-03	3.54E-03	0.00E+00	5.39E-03	9.26E-03	1.48E-03	3.11E-03	potential residence	0.01	2027	0.00
564290_4183310	564290	4183310	2.13E-03	1.96E-03	1.74E-03	0.00E+00	2.70E-03	4.64E-03	7.41E-04	1.56E-03	potential residence	0.00	2027	0.00
564310_4183310	564310	4183310	2.26E-03	2.08E-03	1.84E-03	0.00E+00	2.89E-03	4.97E-03	7.95E-04	1.67E-03	potential residence	0.00	2027	0.00
564330_4183310	564330	4183310	2.40E-03	2.20E-03	1.96E-03	0.00E+00	3.10E-03	5.33E-03	8.52E-04	1.79E-03	potential residence	0.01	2027	0.00
564350_4183310	564350	4183310	2.54E-03	2.34E-03	2.08E-03	0.00E+00	3.32E-03	5.71E-03	9.11E-04	1.92E-03	potential residence	0.01	2027	0.00
564370_4183310	564370	4183310	2.70E-03	2.49E-03	2.21E-03	0.00E+00	3.55E-03	6.10E-03	9.75E-04	2.05E-03	potential residence	0.01	2027	0.00
564390_4183310	564390	4183310	2.87E-03	2.64E-03	2.34E-03	0.00E+00	3.79E-03	6.52E-03	1.04E-03	2.19E-03	potential residence	0.01	2027	0.00
564410_4183310	564410	4183310	3.06E-03	2.81E-03	2.49E-03	0.00E+00	4.04E-03	6.94E-03	1.11E-03	2.33E-03	potential residence	0.01	2027	0.00
564430_4183310	564430	4183310	3.25E-03	2.99E-03	2.65E-03	0.00E+00	4.28E-03	7.36E-03	1.18E-03	2.47E-03	potential residence	0.01	2027	0.00
564450_4183310	564450	4183310	3.46E-03	3.19E-03	2.82E-03	0.00E+00	4.55E-03	7.82E-03	1.25E-03	2.62E-03	potential residence	0.01	2027	0.00
564470_4183310	564470	4183310	3.68E-03	3.39E-03	3.00E-03	0.00E+00	4.80E-03	8.25E-03	1.32E-03	2.77E-03	potential residence	0.01	2027	0.00
564490_4183310	564490	4183310	3.91E-03	3.59E-03	3.19E-03	0.00E+00	5.04E-03	8.67E-03	1.38E-03	2.91E-03	potential residence	0.01	2027	0.00
564510_4183310	564510	4183310	4.14E-03	3.81E-03	3.38E-03	0.00E+00	5.29E-03	9.10E-03	1.45E-03	3.05E-03	potential residence	0.01	2027	0.00
564530_4183310	564530	4183310	4.36E-03	4.01E-03	3.56E-03	0.00E+00	5.55E-03	9.53E-03	1.52E-03	3.20E-03	potential residence	0.01	2027	0.00
564290_4183330	564290	4183330	2.20E-03	2.02E-03	1.79E-03	0.00E+00	2.86E-03	4.92E-03	7.86E-04	1.65E-03	potential residence	0.00	2027	0.00
564310_4183330	564310	4183330	2.34E-03	2.15E-03	1.91E-03	0.00E+00	3.09E-03	5.31E-03	8.48E-04	1.78E-03	potential residence	0.01	2027	0.00
564330_4183330	564330	4183330	2.49E-03	2.29E-03	2.03E-03	0.00E+00	3.33E-03	5.73E-03	9.15E-04	1.92E-03	potential residence	0.01	2027	0.00
564350_4183330	564350	4183330	2.65E-03	2.44E-03	2.16E-03	0.00E+00	3.60E-03	6.19E-03	9.89E-04	2.08E-03	potential residence	0.01	2027	0.00
564370_4183330	564370	4183330	2.83E-03	2.61E-03	2.31E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.25E-03	potential residence	0.01	2027	0.00
564390_4183330	564390	4183330	3.03E-03	2.79E-03	2.47E-03	0.00E+00	4.19E-03	7.21E-03	1.15E-03	2.42E-03	potential residence	0.01	2027	0.00
564410_4183330	564410	4183330	3.24E-03	2.98E-03	2.64E-03	0.00E+00	4.51E-03	7.75E-03	1.24E-03	2.60E-03	potential residence	0.01	2027	0.00
564430_4183330	564430	4183330	3.46E-03	3.18E-03	2.82E-03	0.00E+00	4.82E-03	8.29E-03	1.32E-03	2.78E-03	potential residence	0.01	2027	0.00
564450_4183330	564450	4183330	3.71E-03	3.41E-03	3.02E-03	0.00E+00	5.16E-03	8.87E-03	1.42E-03	2.98E-03	potential residence	0.01	2027	0.00
564470_4183330	564470	4183330	3.97E-03	3.65E-03	3.24E-03	0.00E+00	5.51E-03	9.47E-03	1.51E-03	3.18E-03	potential residence	0.01	2027	0.00
564490_4183330	564490	4183330	4.24E-03	3.90E-03	3.46E-03	0.00E+00	5.81E-03	9.98E-03	1.59E-03	3.35E-03	potential residence	0.01	2027	0.00
564270_4183350	564270	4183350	2.12E-03	1.95E-03	1.73E-03	0.00E+00	2.78E-03	4.79E-03	7.64E-04	1.61E-03	potential residence	0.00	2027	0.00
564290_4183350	564290	4183350	2.26E-03	2.08E-03	1.84E-03	0.00E+00	3.02E-03	5.19E-03	8.29E-04	1.74E-03	potential residence	0.01	2027	0.00
564310_4183350	564310	4183350	2.41E-03	2.21E-03	1.96E-03	0.00E+00	3.28E-03	5.63E-03	9.00E-04	1.89E-03	potential residence	0.01	2027	0.00
564330_4183350	564330	4183350	2.57E-03	2.37E-03	2.10E-03	0.00E+00	3.57E-03	6.13E-03	9.80E-04	2.06E-03	potential residence	0.01	2027	0.00
564350_4183350	564350	4183350	2.76E-03	2.54E-03	2.25E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.25E-03	potential residence	0.01	2027	0.00
564370_4183350	564370	4183350	2.96E-03	2.72E-03	2.41E-03	0.00E+00	4.24E-03	7.29E-03	1.17E-03	2.45E-03	potential residence	0.01	2027	0.00
564390_4183350	564390	4183350	3.17E-03	2.92E-03	2.59E-03	0.00E+00	4.62E-03	7.95E-03	1.27E-03	2.67E-03	potential residence	0.01	2027	0.00
564410_4183350	564410	4183350	3.41E-03	3.14E-03	2.78E-03	0.00E+00	5.03E-03	8.65E-03	1.38E-03	2.90E-03	potential residence	0.01	2027	0.00
564430_4183350	564430	4183350	3.67E-03	3.38E-03	3.00E-03	0.00E+00	5.45E-03	9.37E-03	1.50E-03	3.15E-03	potential residence	0.01	2027	0.00
564450_4183350	564450	4183350	3.96E-03	3.64E-03	3.23E-03	0.00E+00	5.89E-03	1.01E-02	1.62E-03	3.40E-03	potential residence	0.01	2027	0.00
564270_4183370	564270	4183370	2.16E-03	1.99E-03	1.76E-03	0.00E+00	2.90E-03	4.99E-03	7.97E-04	1.68E-03	potential residence	0.00	2027	0.00
564290_4183370	564290	4183370	2.31E-03	2.12E-03	1.88E-03	0.00E+00	3.17E-03	5.45E-03	8.70E-04	1.83E-03	potential residence	0.01	2027	0.00
564310_4183370	564310	4183370	2.47E-03	2.27E-03	2.02E-03	0.00E+00	3.47E-03	5.96E-03	9.52E-04	2.00E-03	potential residence	0.01	2027	0.00
564330_4183370	564330	4183370	2.65E-03	2.44E-03	2.16E-03	0.00E+00	3.80E-03	6.53E-03	1.04E-03	2.19E-03	potential residence	0.01	2027	0.00
564350_4183370	564350	4183370	2.85E-03	2.62E-03	2.32E-03	0.00E+00	4.18E-03	7.18E-03	1.15E-03	2.41E-03	potential residence	0.01	2027	0.00
564370_4183370	564370	4183370	3.07E-03	2.82E-03	2.50E-03	0.00E+00	4.61E-03	7.92E-03	1.26E-03	2.66E-03	potential residence	0.01	2027	0.00
564390_4183370	564390	4183370	3.31E-03	3.04E-03	2.70E-03	0.00E+00	5.08E-03	8.73E-03	1.39E-03	2.93E-03	potential residence	0.01	2027	0.00
564410_4183370	564410	4183370	3.58E-03	3.29E-03	2.92E-03	0.00E+00	5.59E-03	9.61E-03	1.53E-03	3.22E-03	potential residence	0.01	2027	0.00
564250_4183390	564250	4183390	2.06E-03	1.89E-03	1.68E-03	0.00E+00	2.75E-03	4.73E-03	7.56E-04	1.59E-03	potential residence	0.00	2027	0.00
564270_4183390	564270	4183390	2.20E-03	2.02E-03	1.79E-03	0.00E+00	3.01E-03	5.17E-03	8.27E-04	1.74E-03	potential residence	0.01	2027	0.00
564290_4183390	564290	4183390	2.36E-03	2.17E-03	1.92E-03	0.00E+00	3.31E-03	5.68E-03	9.08E-04	1.91E-03	potential residence	0.01	2027	0.00
564310_4183390	564310	4183390	2.53E-03	2.32E-03	2.06E-03	0.00E+00	3.64E-03	6.26E-03	1.00E-03	2.10E-03	potential residence	0.01	2027	0.00
564330_4183390	564330	4183390	2.72E-03	2.50E-03	2.22E-03	0.00E+00	4.01E-03	6.90E-03	1.10E-03	2.31E-03	potential residence	0.01	2027	0.00
564350_4183390	564350	4183390	2.94E-03	2.69E-03	2.39E-03	0.00E+00	4.46E-03	7.66E-03	1.22E-03	2.57E-03	potential residence	0.01	2027	0.00
564370_4183390	564370	4183390	3.17E-03	2.91E-03	2.58E-03	0.00E+00	4.96E-03	8.52E-03	1.36E-03	2.86E-03	potential residence	0.01	2027	0.00
564690_4183390	564690	4183390	1.25E-02	1.15E-02	1.02E-02	0.00E+00	2.86E-02	4.91E-02	7.84E-03	1.65E-02	potential residence	0.05	2027	0.01
564710_4183390	564710	4183390	1.35E-02	1.24E-02	1.10E-02	0.00E+00	3.11E-02	5.35E-02	8.54E-03	1.80E-02	potential residence	0.05	2027	0.01
564250_4183410	564250	4183410	2.09E-03	1.92E-03	1.70E-03	0.00E+00	2.82E-03	4.85E-03	7.76E-04	1.63E-03	potential residence	0.00	2027	0.00
564270_4183410	564270	4183410	2.24E-03	2.05E-03	1.82E-03	0.00E+00	3.10E-03	5.33E-03	8.52E-04	1.79E-03	potential residence	0.01	2027	0.00
564290_4183410	564290	4183410	2.40E-03	2.20E-03	1.95E-03	0.00E+00	3.42E-03	5.87E-03	9.39E-04	1.97E-03	potential residence	0.01	2027	0.00
564310_4183410	564310	4183410	2.58E-03	2.36E-03	2.10E-03	0.00E+00	3.79E-03	6.51E-03	1.04E-03	2.18E-03	potential residence	0.01	2027	0.00
564330_4183410	564330	4183410	2.78E-03	2.55E-03	2.26E-03	0.00E+00	4.21E-03	7.24E-03	1.16E-03	2.43E-03	potential residence	0.01	2027	0.00
564570_4183410	564570	4183410	8.68E-03	7.99E-03	7.08E-03	0.00E+00	1.77E-02	3.04E-02	4.85E-03	1.02E-02	potential residence	0.03	2027	0.01
564590_4183410	564590	4183410	9.66E-03	8.89E-03	7.88E-03	0.00E+00	1.99E-02	3.42E-02	5.46E-03	1.15E-02	potential residence	0.03	2027	0.01
564690_4183410	564690	4183410	1.53E-02	1.41E-02	1.25E-02	0.00E+00	4.05E-02	6.96E-02	1.11E-02	2.34E-02	potential residence	0.07	2027	0.01
564710_4183410	564710	4183410	1.67E-02	1.54E-02	1.36E-02	0.00E+00	4.25E-02	7.30E-02	1.17E-02	2.45E-02	potential residence	0.07	2027	0.01
564230_4183430	564230	4183430	1.97E-03	1.81E-03	1.60E-03	0.00E+00	2.62E-03	4.50E-03	7.20E-04	1.51E-03	potential residence	0.00	2027	0.00
564250_4183430	564250	4183430	2.11E-03	1.93E-03	1.71E-03	0.00E+00	2.87E-03	4.94E-03	7.90E-04	1.66E-03	potential residence	0.00	2027	0.00
564270_4183430	564270	4183430	2.26E-03	2.07E-03	1.84E-03	0.00E+00	3.17E-03	5.44E-03	8.70E-04	1.83E-03	potential residence	0.01	2027	0.00
564290_4183430	564290	4183430	2.43E-03	2.23E-03	1.98E-03	0.00E+00	3.51E-03	6.03E-03	9.64E-04	2.02E-03	potential residence	0.01	2027	0.00
564550_4183430	564550	4183430	8.52E-03	7.84E-03	6.95E-03	0.00E+00	2.09E-02	3.58E-02	5.72E-03	1.20E-02	potential residence	0.04	2027	0.01
564570_4183430	564570	4183430	9.67E-03	8.89E-03	7.89E-03	0.00E+00	2.40E-02	4.12E-02	6.58E-03	1.38E-02	potential residence	0.04	2027	0.01
564590_4183430	564590	4183430	1.10E-02	1.01E-02	8.94E-03	0.00E+00	2.79E-02	4.80E-02	7.67E-03	1.61E-02	potential residence	0.05	2027	0.01
564630_4183430	564630	4183430	1.39E-02	1.28E-02	1.14E-02	0.00E+00	3.94E-02	6.76E-02	1.08E-02	2.27E-02	potential residence	0.07	2027	0.01
564650_4183430	564650	4183430	1.55E-02	1.43E-02	1.27E-02	0.00E+00	4.70E-02	8.07E-02	1.29E-02	2.71E-02	potential residence	0.08	2027	0.02
564730_4183430	564730	4183430	2.40E-02	2.20E-02	1.96E-02	0.00E+00	5.54E-02	9.52E-02	1.52E-02	3.20E-02	potential residence	0.10	2027	0.02
564230_4183450	564230	4183450	1.98E-03	1.82E-03	1.61E-03	0.00E+00	2.64E-03	4.54E-03	7.27E-04	1.52E-03	potential residence	0.00	2027	0.00
564250_4183450	564250	4183450	2.13E-03	1.94E-03	1.72E-03	0.00E+00	2.91E-03	5.00E-03	7.99E-04	1.68E-03	potential residence	0.00	2027	0.00
564570_4183450	564570	4183450	1.06E-02	9.75E-03	8.64E-03	0.00E+00	3.36E-02	5.78E-02	9.23E-03	1.94E-02	potential residence	0.06	2027	0.01
564590_4183450	564590	4183450	1.23E-02	1.13E-02	1.00E-02	0.00E+00	4.11E-02	7.06E-02	1.13E-02	2.37E-02	potential residence	0.07	2027	0.01
564610_4183450	564610	4183450	1.42E-02	1.31E-02	1.16E-02	0.00E+00	5.07E-02	8.71E-02	1.39E-02	2.93E-02	potential residence	0.09	2027	0.02
564690_4183450	564690	4183450	2.47E-02	2.27E-02	2.01E-02	0.00E+00	8.44E-02	1.45E-01	2.31E-02	4.87E-02	potential residence	0.14	2027	0.03
564710_4183450	564710	4183450	2.81E-02	2.58E-02	2.29E-02	0.00E+00	7.78E-02	1.34E-01	2.14E-02	4.49E-02	potential residence	0.13	2027	0.03

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Unmitigated HI Risk

			Unmitigated								Receptor Type	C_{DPM}/REL		
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564730_418345C	564730	4183450	3.22E-02	2.97E-02	2.63E-02	0.00E+00	6.95E-02	1.19E-01	1.91E-02	4.01E-02	potential residence	0.12	2027	0.02
564450_418347C	564450	4183470	5.12E-03	4.68E-03	4.15E-03	0.00E+00	1.20E-02	2.05E-02	3.28E-03	6.90E-03	potential residence	0.02	2027	0.00
564470_418347C	564470	4183470	5.72E-03	5.24E-03	4.65E-03	0.00E+00	1.48E-02	2.54E-02	4.05E-03	8.52E-03	potential residence	0.03	2027	0.01
564490_418347C	564490	4183470	6.46E-03	5.92E-03	5.25E-03	0.00E+00	1.86E-02	3.20E-02	5.11E-03	1.07E-02	potential residence	0.03	2027	0.01
564530_418347C	564530	4183470	8.44E-03	7.75E-03	6.87E-03	0.00E+00	2.98E-02	5.13E-02	8.18E-03	1.72E-02	potential residence	0.05	2027	0.01
564550_418347C	564550	4183470	9.78E-03	8.98E-03	7.97E-03	0.00E+00	3.78E-02	6.49E-02	1.04E-02	2.18E-02	potential residence	0.06	2027	0.01
564570_418347C	564570	4183470	1.15E-02	1.05E-02	9.34E-03	0.00E+00	4.92E-02	8.45E-02	1.35E-02	2.84E-02	potential residence	0.08	2027	0.02
564590_418347C	564590	4183470	1.36E-02	1.25E-02	1.11E-02	0.00E+00	6.61E-02	1.14E-01	1.81E-02	3.81E-02	potential residence	0.11	2027	0.02
564650_418347C	564650	4183470	2.32E-02	2.13E-02	1.89E-02	0.00E+00	1.40E-01	2.40E-01	3.83E-02	8.06E-02	potential residence	0.24	2027	0.05
564670_418347C	564670	4183470	2.73E-02	2.51E-02	2.23E-02	0.00E+00	1.34E-01	2.30E-01	3.67E-02	7.72E-02	potential residence	0.23	2027	0.05
564690_418347C	564690	4183470	3.23E-02	2.97E-02	2.64E-02	0.00E+00	1.18E-01	2.03E-01	3.24E-02	6.81E-02	potential residence	0.20	2027	0.04
564710_418347C	564710	4183470	3.84E-02	3.54E-02	3.14E-02	0.00E+00	1.00E-01	1.72E-01	2.75E-02	5.79E-02	potential residence	0.17	2027	0.03
564730_418347C	564730	4183470	4.64E-02	4.28E-02	3.79E-02	0.00E+00	8.42E-02	1.45E-01	2.31E-02	4.86E-02	potential residence	0.14	2027	0.03
564750_418347C	564750	4183470	5.73E-02	5.28E-02	4.68E-02	0.00E+00	7.08E-02	1.22E-01	1.94E-02	4.08E-02	potential residence	0.12	2027	0.02
564410_418349C	564410	4183490	4.23E-03	3.83E-03	3.40E-03	0.00E+00	8.43E-03	1.45E-02	2.32E-03	4.86E-03	potential residence	0.01	2027	0.00
564430_418349C	564430	4183490	4.66E-03	4.24E-03	3.76E-03	0.00E+00	1.02E-02	1.75E-02	2.80E-03	5.87E-03	potential residence	0.02	2027	0.00
564450_418349C	564450	4183490	5.18E-03	4.73E-03	4.20E-03	0.00E+00	1.26E-02	2.16E-02	3.45E-03	7.25E-03	potential residence	0.02	2027	0.00
564470_418349C	564470	4183490	5.81E-03	5.32E-03	4.72E-03	0.00E+00	1.59E-02	2.74E-02	4.37E-03	9.19E-03	potential residence	0.03	2027	0.01
564490_418349C	564490	4183490	6.58E-03	6.03E-03	5.35E-03	0.00E+00	2.08E-02	3.58E-02	5.72E-03	1.20E-02	potential residence	0.04	2027	0.01
564530_418349C	564530	4183490	8.76E-03	8.03E-03	7.13E-03	0.00E+00	3.86E-02	6.63E-02	1.06E-02	2.23E-02	potential residence	0.07	2027	0.01
564550_418349C	564550	4183490	1.03E-02	9.43E-03	8.37E-03	0.00E+00	5.31E-02	9.13E-02	1.46E-02	3.06E-02	potential residence	0.09	2027	0.02
564610_418349C	564610	4183490	1.83E-02	1.68E-02	1.49E-02	0.00E+00	5.35E-05	1.06E-04	2.71E-05	2.67E-05	Omit	0.00	NA	0.00
564630_418349C	564630	4183490	2.28E-02	2.10E-02	1.86E-02	0.00E+00	4.33E-05	8.55E-05	2.19E-05	2.16E-05	Omit	0.00	NA	0.00
564650_418349C	564650	4183490	2.81E-02	2.59E-02	2.30E-02	0.00E+00	2.27E-01	3.89E-01	6.21E-02	1.31E-01	potential residence	0.39	2027	0.08
564670_418349C	564670	4183490	3.48E-02	3.20E-02	2.84E-02	0.00E+00	1.92E-01	3.30E-01	5.27E-02	1.11E-01	potential residence	0.33	2027	0.07
564690_418349C	564690	4183490	4.34E-02	4.00E-02	3.55E-02	0.00E+00	1.54E-01	2.65E-01	4.23E-02	8.90E-02	potential residence	0.26	2027	0.05
564710_418349C	564710	4183490	5.55E-02	5.11E-02	4.53E-02	0.00E+00	1.22E-01	2.10E-01	3.35E-02	7.04E-02	potential residence	0.21	2027	0.04
564730_418349C	564730	4183490	7.31E-02	6.74E-02	5.98E-02	0.00E+00	9.69E-02	1.67E-01	2.66E-02	5.59E-02	potential residence	0.17	2027	0.03
564750_418349C	564750	4183490	9.76E-02	9.00E-02	7.98E-02	0.00E+00	7.86E-02	1.35E-01	2.16E-02	4.53E-02	potential residence	0.13	2027	0.03
564370_418351C	564370	4183510	3.44E-03	3.13E-03	2.78E-03	0.00E+00	6.02E-03	1.04E-02	1.66E-03	3.47E-03	potential residence	0.01	2027	0.00
564410_418351C	564410	4183510	4.24E-03	3.83E-03	3.40E-03	0.00E+00	8.46E-03	1.45E-02	2.33E-03	4.88E-03	potential residence	0.01	2027	0.00
564430_418351C	564430	4183510	4.66E-03	4.24E-03	3.76E-03	0.00E+00	1.03E-02	1.76E-02	2.82E-03	5.92E-03	potential residence	0.02	2027	0.00
564450_418351C	564450	4183510	5.19E-03	4.73E-03	4.20E-03	0.00E+00	1.28E-02	2.20E-02	3.51E-03	7.37E-03	potential residence	0.02	2027	0.00
564470_418351C	564470	4183510	5.83E-03	5.33E-03	4.73E-03	0.00E+00	1.65E-02	2.83E-02	4.52E-03	9.50E-03	potential residence	0.03	2027	0.01
564490_418351C	564490	4183510	6.66E-03	6.09E-03	5.40E-03	0.00E+00	2.23E-02	3.83E-02	6.12E-03	1.29E-02	potential residence	0.04	2027	0.01
564510_418351C	564510	4183510	7.69E-03	7.03E-03	6.24E-03	0.00E+00	3.20E-02	5.50E-02	8.79E-03	1.85E-02	potential residence	0.06	2027	0.01
564550_418351C	564550	4183510	1.07E-02	9.77E-03	8.67E-03	0.00E+00	7.61E-05	1.50E-04	3.85E-05	3.80E-05	Omit	0.00	NA	0.00
564570_418351C	564570	4183510	1.29E-02	1.18E-02	1.05E-02	0.00E+00	5.26E-05	1.04E-04	2.66E-05	2.63E-05	Omit	0.00	NA	0.00
564590_418351C	564590	4183510	1.58E-02	1.45E-02	1.29E-02	0.00E+00	4.22E-05	8.34E-05	2.13E-05	2.11E-05	Omit	0.00	NA	0.00
564610_418351C	564610	4183510	2.00E-02	1.84E-02	1.63E-02	0.00E+00	3.59E-05	7.10E-05	1.82E-05	1.80E-05	Omit	0.00	NA	0.00
564630_418351C	564630	4183510	2.56E-02	2.35E-02	2.09E-02	0.00E+00	3.30E-05	6.52E-05	1.67E-05	1.65E-05	Omit	0.00	NA	0.00
564650_418351C	564650	4183510	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00	NA	0.00
564710_418351C	564710	4183510	8.71E-02	8.03E-02	7.12E-02	0.00E+00	1.34E-01	2.31E-01	3.69E-02	7.76E-02	potential residence	0.23	2027	0.05
564750_418351C	564750	4183510	1.91E-04	6.83E-05	7.05E-05	0.00E+00	8.18E-02	1.41E-01	2.25E-02	4.72E-02	Block1	0.14	2027	0.03
564770_418351C	564770	4183510	1.41E-04	5.07E-05	5.23E-05	0.00E+00	6.62E-02	1.14E-01	1.82E-02	3.82E-02	Block1	0.11	2027	0.02
564330_418353C	564330	4183530	2.84E-03	2.59E-03	2.30E-03	0.00E+00	4.44E-03	7.64E-03	1.22E-03	2.56E-03	potential residence	0.01	2027	0.00
564350_418353C	564350	4183530	3.09E-03	2.82E-03	2.50E-03	0.00E+00	5.08E-03	8.74E-03	1.40E-03	2.93E-03	potential residence	0.01	2027	0.00
564370_418353C	564370	4183530	3.38E-03	3.09E-03	2.74E-03	0.00E+00	5.88E-03	1.01E-02	1.62E-03	3.39E-03	potential residence	0.01	2027	0.00
564390_418353C	564390	4183530	3.73E-03	3.41E-03	3.02E-03	0.00E+00	6.92E-03	1.19E-02	1.90E-03	3.99E-03	potential residence	0.01	2027	0.00
564430_418353C	564430	4183530	4.63E-03	4.20E-03	3.73E-03	0.00E+00	1.01E-02	1.73E-02	2.77E-03	5.81E-03	potential residence	0.02	2027	0.00
564450_418353C	564450	4183530	5.16E-03	4.70E-03	4.17E-03	0.00E+00	1.26E-02	2.17E-02	3.46E-03	7.27E-03	potential residence	0.02	2027	0.00
564470_418353C	564470	4183530	5.84E-03	5.32E-03	4.73E-03	0.00E+00	1.64E-02	2.82E-02	4.51E-03	9.47E-03	potential residence	0.03	2027	0.01
564510_418353C	564510	4183530	7.79E-03	7.06E-03	6.27E-03	0.00E+00	3.31E-02	5.69E-02	9.10E-03	1.91E-02	potential residence	0.06	2027	0.01
564550_418353C	564550	4183530	1.07E-02	9.83E-03	8.72E-03	0.00E+00	4.07E-05	8.03E-05	2.05E-05	2.03E-05	Omit	0.00	NA	0.00
564570_418353C	564570	4183530	1.31E-02	1.20E-02	1.07E-02	0.00E+00	3.39E-05	6.69E-05	1.71E-05	1.69E-05	Omit	0.00	NA	0.00
564590_418353C	564590	4183530	1.63E-02	1.50E-02	1.33E-02	0.00E+00	3.10E-05	6.11E-05	1.56E-05	1.55E-05	Omit	0.00	NA	0.00
564610_418353C	564610	4183530	2.06E-02	1.90E-02	1.68E-02	0.00E+00	3.01E-05	5.95E-05	1.52E-05	1.50E-05	Omit	0.00	NA	0.00
564630_418353C	564630	4183530	2.69E-02	2.48E-02	2.20E-02	0.00E+00	3.09E-05	6.10E-05	1.56E-05	1.54E-05	Omit	0.00	NA	0.00
564650_418353C	564650	4183530	3.79E-02	3.49E-02	3.10E-02	0.00E+00	3.61E-05	7.13E-05	1.83E-05	1.80E-05	Omit	0.00	NA	0.00
564710_418353C	564710	4183530	1.83E-04	6.57E-05	6.78E-05	0.00E+00	1.28E-01	2.19E-01	3.50E-02	7.36E-02	Block1	0.22	2027	0.04
564730_418353C	564730	4183530	1.37E-04	4.91E-05	5.06E-05	0.00E+00	9.85E-02	1.69E-01	2.70E-02	5.68E-02	Block1	0.17	2027	0.03
564750_418353C	564750	4183530	1.09E-04	3.90E-05	4.02E-05	0.00E+00	7.79E-02	1.34E-01	2.14E-02	4.49E-02	Omit	0.00	NA	0.00
564770_418353C	564770	4183530	8.92E-05	3.20E-05	3.30E-05	0.00E+00	6.32E-02	1.09E-01	1.73E-02	3.65E-02	Omit	0.00	NA	0.00
564790_418353C	564790	4183530	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00	NA	0.00
564290_418355C	564290	4183550	2.39E-03	2.18E-03	1.93E-03	0.00E+00	3.40E-03	5.85E-03	9.36E-04	1.96E-03	potential residence	0.01	2027	0.00
564310_418355C	564310	4183550	2.57E-03	2.35E-03	2.08E-03	0.00E+00	3.81E-03	6.55E-03	1.05E-03	2.20E-03	potential residence	0.01	2027	0.00
564330_418355C	564330	4183550	2.78E-03	2.55E-03	2.26E-03	0.00E+00	4.30E-03	7.40E-03	1.18E-03	2.48E-03	potential residence	0.01	2027	0.00
564350_418355C	564350	4183550	3.03E-03	2.77E-03	2.46E-03	0.00E+00	4.91E-03	8.45E-03	1.35E-03	2.83E-03	potential residence	0.01	2027	0.00
564370_418355C	564370	4183550	3.31E-03	3.03E-03	2.69E-03	0.00E+00	5.68E-03	9.76E-03	1.56E-03	3.27E-03	potential residence	0.01	2027	0.00
564390_418355C	564390	4183550	3.65E-03	3.34E-03	2.96E-03	0.00E+00	6.66E-03	1.14E-02	1.83E-03	3.84E-03	potential residence	0.01	2027	0.00
564430_418355C	564430	4183550	4.57E-03	4.14E-03	3.68E-03	0.00E+00	9.69E-03	1.67E-02	2.67E-03	5.59E-03	potential residence	0.02	2027	0.00
564470_418355C	564470	4183550	5.84E-03	5.27E-03	4.68E-03	0.00E+00	1.57E-02	2.71E-02	4.33E-03	9.08E-03	potential residence	0.03	2027	0.01
564490_418355C	564490	4183550	6.56E-03	5.97E-03	5.30E-03	0.00E+00	2.13E-02	3.67E-02	5.86E-03	1.23E-02	potential residence	0.04	2027	0.01
564510_418355C	564510	4183550	7.51E-03	6.87E-03	6.10E-03	0.00E+00	3.10E-02	5.33E-02	8.52E-03	1.79E-02	potential residence	0.05	2027	0.01
564530_418355C	564530	4183550	8.79E-03	8.06E-03	7.15E-03	0.00E+00	4.97E-02	8.54E-02	1.36E-02	2.87E-02	potential residence	0.09	2027	0.02
564550_418355C	564550	4183550	1.04E-02	9.58E-03	8.50E-03	0.00E+00	2.74E-05	5.42E-05	1.39E-05	1.37E-05	Omit	0.00	NA	0.00
564570_418355C	564570	4183550	1.28E-02	1.17E-02	1.04E-02	0.00E+00	2.65E-05	5.23E-05	1.34E-05	1.32E-05	Omit	0.00	NA	0.00
564590_418355C	564590	4183550	1.59E-02	1.46E-02	1.30E-02	0.00E+00	2.78E-05	5.48E-05	1.40E-05	1.39E-05	Omit	0.00	NA	0.00
564610_418355C	564610	4183550	2.02E-02	1.86E-02	1.65E-02	0.00E+00	3.28E-05	6.48E-05	1.66E-05	1.64E-05	Omit	0.00	NA	0.00
564630_418355C	564630	4183550	2.73E-02	2.51E-02	2.23E-02	0.00E+00	4.76E-05	9.39E-05	2.40E-05	2.38E-05	Omit	0.00	NA	0.00
564690_418355C	564690	4183550	1.30E-04	4.66E-05	4.81E-05	0.00E+00	1.30E-01	2.23E-01	3.56E-02	7.48E-02	Omit	0.00	NA	0.00
564710_418355C	564710	4183550	1.05E-04	3.75E-05	3.87E-05	0.00E+00	1.02E-01	1.76E-01	2.80E-02	5.89E-02	Block1	0.18	2027	0.04
564730_418355C	564730	4183550	8.78E-05	3.15E-05	3.25E-05	0.00E+00	8.25E-02	1.42E-01	2.26E-02	4.76E-02	Omit	0.00	NA	0.00
564750_418355C	564750	4183550	7.44E-05	2.67E-05	2.75E-05	0.00E+00	6.73E-02	1.16E-01	1.85E-02	3.88E-02	Block1	0.12	2027	0.02
564770_418355C	564770	4183550	6.41E-05	2.30E-05	2.37E-05	0.00E+00	5.59E-02	9.60E-02	1.53E-02	3.22E-02	Block1	0.10	2027	0.02
564790_418355C	564790	4183550	5.68E-05	2.04E-05	2.10E-05	0.00E+00	4.76E-02	8.18E-02	1.31E-02	2.75E-02	Block1	0.08	2027	0.02
564250_418357C	564250	4183570	2.03E-03	1.85E-03	1.64E-03	0.00E+00	2.68E-03	4.61E-03	7.38E-04	1.54E-03	potential residence	0.00	2027	0.00
564270_418357C	564270	4183570	2.17E-03	1.98E-03	1.76E-03	0.00E+00	2.96E-03	5.08E-03	8.14E-04	1.71E-03	potential residence	0.01	2027	0.00
564290_418357C	564290	4183570	2.33E-03	2.13E-03	1.89E-03	0.00E+00	3.29E-03	5.65E-03	9.04E-04	1.90E-03	potential residence	0.01	2027	0.00
564310_418357C	564310	4183570	2.51E-03	2.30E-03	2.04E-03	0.00E+00	3.68E-03	6.32E-03	1.01E-03	2.12E-03	potential residence	0.01	2027	0.00
564330_418357C	564330	4183570	2.72E-03	2.49E-03	2.21E-03	0.00E+00	4.14E-03	7.12E-03	1.14E-03	2.39E-03	potential residence	0.01	2027	0.00
564350_418357C	564350	4183570	2.96E-03	2.71E-03	2.40E-03	0.00E+00	4.72E-03	8.12E-03	1.30E-03	2.72E-03	potential residence	0.01	2027	0.00
564370_418357C	564370	4183570	3.23E-03	2.96E-03	2.63E-03	0.00E+00	5.44E-03	9.35E-03	1.49E-03	3.14E-03	potential residence	0.01	2027	0.00
564390_418357C	564390	4183570	3.55E-03	3.26E-03	2.89E-03	0.00E+00	6.36E-03	1.09E-02	1.75E-03	3.67E-03	potential residence	0.01	2027	0.00
564430_418357C	564430	4183570	4.43E-03	4.03E-03	3.57E-03	0.00E+00	9.18E-03	1.58E-02	2.53E-03	5.30E-03	potential residence	0.02	2027	0.00
564450_418357C	564450	4183570	4.94E-03	4.50E-03	4.00E-03	0.00E+00	1.14E-02	1.96E-02	3.13E-03	6.57E-03	potential residence	0.02	2027	0.00
564470_418357C	564470	4183570	5.54E-03	5.06E-03	4.49E-03	0.00E+00	1.45E-02	2.50E-02	3.99E-03	8.39E-03	potential residence	0.02	2027	0.00
564490_418357C	564490	4183570	6.29E-03	5.76E-03	5.11E-03	0.00E+00	1.94E-02	3.34E-02	5.33E-03	1.12E-02	potential residence	0.03	2027	0.01
564510_418357C	564510	4183570	7.24E-03	6.64E-03	5.89E-03	0.00E+00	2.74E-02	4.71E-02	7.51E-03	1.58E-02	potential residence	0.05	2027	0.01
564530_418357C	564530	4183570	8.45E-03	7.77E-03	6.89E-03	0.00E+00	4.07E-02	7.00E-02	1.12E-02	2.35E-02	potential residence	0.07	2027	0.01
564550_418357C	564550	4183570	1.00E-02	9.23E-03	8.19E-03	0.00E+00	6.54E-02	1.12E-01	1.79E-02	3.77E-02	potential residence	0.11	2027	0.02
564570_418357C	564570	4183570	1.21E-02	1.12E-02	9.90E-03	0.00E+00	2.49E-05	4.92E-05	1.26E-05	1.24E-05	Omit	0.00	NA	0.00
564590_418357C	564590	4183570	1.51E-02	1.39E-02	1.23E-02	0.00E+00	4.14E-05	8.18E-05	2.09E-05	2.07E-05	Omit	0.00	NA	0.00
564690_418357C	564690	4183570	8.11E-05	2.91E-05	3.00E-05	0.00E+00	8.57E-02	1.47E-01	2.35E-02	4.94E-02	Omit	0.00	NA	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Unmitigated HI Risk

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	C_{DPM}/REL Max DPM	Max Year	HI
564710_4183570	564710	4183570	6.84E-05	2.45E-05	2.53E-05	0.00E+00	7.13E-02	1.23E-01	1.96E-02	4.12E-02	Omit	0.00	NA	0.00
564730_4183570	564730	4183570	6.12E-05	2.19E-05	2.27E-05	0.00E+00	6.17E-02	1.06E-01	1.69E-02	3.56E-02	Block1	0.11	2027	0.02
564750_4183570	564750	4183570	5.40E-05	1.94E-05	2.00E-05	0.00E+00	5.26E-02	9.04E-02	1.44E-02	3.04E-02	Block1	0.09	2027	0.02
564770_4183570	564770	4183570	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.55E-02	7.81E-02	1.25E-02	2.62E-02	Block1	0.08	2027	0.02
564230_4183590	564230	4183590	1.85E-03	1.69E-03	1.50E-03	0.00E+00	2.36E-03	4.06E-03	6.49E-04	1.36E-03	potential residence	0.00	2027	0.00
564250_4183590	564250	4183590	1.97E-03	1.81E-03	1.60E-03	0.00E+00	2.58E-03	4.44E-03	7.11E-04	1.49E-03	potential residence	0.00	2027	0.00
564270_4183590	564270	4183590	2.11E-03	1.93E-03	1.72E-03	0.00E+00	2.85E-03	4.90E-03	7.84E-04	1.64E-03	potential residence	0.00	2027	0.00
564290_4183590	564290	4183590	2.27E-03	2.08E-03	1.84E-03	0.00E+00	3.16E-03	5.43E-03	8.69E-04	1.82E-03	potential residence	0.01	2027	0.00
564310_4183590	564310	4183590	2.45E-03	2.24E-03	1.99E-03	0.00E+00	3.53E-03	6.07E-03	9.70E-04	2.04E-03	potential residence	0.01	2027	0.00
564330_4183590	564330	4183590	2.64E-03	2.43E-03	2.15E-03	0.00E+00	3.97E-03	6.83E-03	1.09E-03	2.29E-03	potential residence	0.01	2027	0.00
564350_4183590	564350	4183590	2.87E-03	2.64E-03	2.34E-03	0.00E+00	4.52E-03	7.76E-03	1.24E-03	2.60E-03	potential residence	0.01	2027	0.00
564370_4183590	564370	4183590	3.14E-03	2.88E-03	2.55E-03	0.00E+00	5.19E-03	8.92E-03	1.43E-03	2.99E-03	potential residence	0.01	2027	0.00
564390_4183590	564390	4183590	3.45E-03	3.16E-03	2.81E-03	0.00E+00	6.05E-03	1.04E-02	1.66E-03	3.49E-03	potential residence	0.01	2027	0.00
564410_4183590	564410	4183590	3.80E-03	3.49E-03	3.09E-03	0.00E+00	7.14E-03	1.23E-02	1.96E-03	4.12E-03	potential residence	0.01	2027	0.00
564430_4183590	564430	4183590	4.23E-03	3.88E-03	3.44E-03	0.00E+00	8.60E-03	1.48E-02	2.36E-03	4.96E-03	potential residence	0.01	2027	0.00
564450_4183590	564450	4183590	4.72E-03	4.33E-03	3.84E-03	0.00E+00	1.06E-02	1.82E-02	2.90E-03	6.10E-03	potential residence	0.02	2027	0.00
564470_4183590	564470	4183590	5.30E-03	4.86E-03	4.31E-03	0.00E+00	1.33E-02	2.28E-02	3.65E-03	7.67E-03	potential residence	0.02	2027	0.00
564490_4183590	564490	4183590	6.02E-03	5.53E-03	4.91E-03	0.00E+00	1.73E-02	2.98E-02	4.75E-03	9.99E-03	potential residence	0.03	2027	0.01
564510_4183590	564510	4183590	6.91E-03	6.35E-03	5.63E-03	0.00E+00	2.31E-02	3.97E-02	6.35E-03	1.33E-02	potential residence	0.04	2027	0.01
564530_4183590	564530	4183590	8.07E-03	7.42E-03	6.58E-03	0.00E+00	3.18E-02	5.46E-02	8.72E-03	1.83E-02	potential residence	0.05	2027	0.01
564710_4183590	564710	4183590	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.84E-02	8.31E-02	1.33E-02	2.79E-02	Omit	0.00	NA	0.00
564730_4183590	564730	4183590	4.42E-05	1.58E-05	1.64E-05	0.00E+00	4.34E-02	7.46E-02	1.19E-02	2.51E-02	Block1	0.07	2027	0.01
564230_4183610	564230	4183610	1.80E-03	1.65E-03	1.46E-03	0.00E+00	2.28E-03	3.92E-03	6.26E-04	1.31E-03	potential residence	0.00	2027	0.00
564250_4183610	564250	4183610	1.92E-03	1.76E-03	1.56E-03	0.00E+00	2.49E-03	4.28E-03	6.85E-04	1.44E-03	potential residence	0.00	2027	0.00
564270_4183610	564270	4183610	2.05E-03	1.88E-03	1.67E-03	0.00E+00	2.74E-03	4.71E-03	7.53E-04	1.58E-03	potential residence	0.00	2027	0.00
564290_4183610	564290	4183610	2.20E-03	2.02E-03	1.79E-03	0.00E+00	3.04E-03	5.22E-03	8.34E-04	1.75E-03	potential residence	0.01	2027	0.00
564310_4183610	564310	4183610	2.37E-03	2.18E-03	1.93E-03	0.00E+00	3.39E-03	5.82E-03	9.30E-04	1.95E-03	potential residence	0.01	2027	0.00
564330_4183610	564330	4183610	2.57E-03	2.36E-03	2.09E-03	0.00E+00	3.80E-03	6.54E-03	1.04E-03	2.19E-03	potential residence	0.01	2027	0.00
564350_4183610	564350	4183610	2.79E-03	2.56E-03	2.27E-03	0.00E+00	4.31E-03	7.41E-03	1.18E-03	2.49E-03	potential residence	0.01	2027	0.00
564370_4183610	564370	4183610	3.04E-03	2.79E-03	2.47E-03	0.00E+00	4.93E-03	8.48E-03	1.35E-03	2.85E-03	potential residence	0.01	2027	0.00
564390_4183610	564390	4183610	3.32E-03	3.05E-03	2.71E-03	0.00E+00	5.71E-03	9.81E-03	1.57E-03	3.29E-03	potential residence	0.01	2027	0.00
564410_4183610	564410	4183610	3.65E-03	3.36E-03	2.98E-03	0.00E+00	6.69E-03	1.15E-02	1.84E-03	3.86E-03	potential residence	0.01	2027	0.00
564430_4183610	564430	4183610	4.05E-03	3.72E-03	3.30E-03	0.00E+00	8.01E-03	1.38E-02	2.20E-03	4.62E-03	potential residence	0.01	2027	0.00
564450_4183610	564450	4183610	4.53E-03	4.16E-03	3.69E-03	0.00E+00	9.77E-03	1.68E-02	2.68E-03	5.64E-03	potential residence	0.02	2027	0.00
564470_4183610	564470	4183610	5.07E-03	4.66E-03	4.14E-03	0.00E+00	1.20E-02	2.07E-02	3.30E-03	6.95E-03	potential residence	0.02	2027	0.00
564490_4183610	564490	4183610	5.76E-03	5.30E-03	4.70E-03	0.00E+00	1.52E-02	2.61E-02	4.17E-03	8.77E-03	potential residence	0.03	2027	0.01
564510_4183610	564510	4183610	6.60E-03	6.07E-03	5.38E-03	0.00E+00	1.93E-02	3.32E-02	5.29E-03	1.11E-02	potential residence	0.03	2027	0.01
564750_4183610	564750	4183610	1.11E-01	1.02E-01	9.07E-02	0.00E+00	2.80E-02	4.81E-02	7.69E-03	1.62E-02	potential residence	0.11	2022	0.02
564770_4183610	564770	4183610	1.08E-01	9.97E-02	8.84E-02	0.00E+00	2.59E-02	4.45E-02	7.10E-03	1.49E-02	potential residence	0.11	2022	0.02
564830_4183610	564830	4183610	8.38E-02	7.73E-02	6.86E-02	0.00E+00	2.05E-02	3.52E-02	5.62E-03	1.18E-02	potential residence	0.08	2022	0.02
564250_4183630	564250	4183630	1.87E-03	1.71E-03	1.52E-03	0.00E+00	2.40E-03	4.13E-03	6.60E-04	1.39E-03	potential residence	0.00	2027	0.00
564270_4183630	564270	4183630	1.99E-03	1.83E-03	1.62E-03	0.00E+00	2.64E-03	4.54E-03	7.26E-04	1.52E-03	potential residence	0.00	2027	0.00
564290_4183630	564290	4183630	2.14E-03	1.97E-03	1.74E-03	0.00E+00	2.92E-03	5.02E-03	8.02E-04	1.69E-03	potential residence	0.01	2027	0.00
564310_4183630	564310	4183630	2.30E-03	2.12E-03	1.88E-03	0.00E+00	3.25E-03	5.59E-03	8.93E-04	1.88E-03	potential residence	0.01	2027	0.00
564330_4183630	564330	4183630	2.49E-03	2.29E-03	2.03E-03	0.00E+00	3.65E-03	6.27E-03	1.00E-03	2.10E-03	potential residence	0.01	2027	0.00
564350_4183630	564350	4183630	2.69E-03	2.47E-03	2.19E-03	0.00E+00	4.11E-03	7.06E-03	1.13E-03	2.37E-03	potential residence	0.01	2027	0.00
564370_4183630	564370	4183630	2.93E-03	2.69E-03	2.39E-03	0.00E+00	4.68E-03	8.05E-03	1.29E-03	2.70E-03	potential residence	0.01	2027	0.00
564390_4183630	564390	4183630	3.20E-03	2.94E-03	2.61E-03	0.00E+00	5.41E-03	9.29E-03	1.48E-03	3.12E-03	potential residence	0.01	2027	0.00
564410_4183630	564410	4183630	3.40E-03	3.12E-03	2.77E-03	0.00E+00	6.28E-03	1.08E-02	1.72E-03	3.62E-03	potential residence	0.01	2027	0.00
564430_4183630	564430	4183630	3.76E-03	3.46E-03	3.07E-03	0.00E+00	7.45E-03	1.28E-02	2.04E-03	4.30E-03	potential residence	0.01	2027	0.00
564450_4183630	564450	4183630	4.33E-03	3.99E-03	3.54E-03	0.00E+00	8.95E-03	1.54E-02	2.45E-03	5.16E-03	potential residence	0.02	2027	0.00
564470_4183630	564470	4183630	4.86E-03	4.47E-03	3.97E-03	0.00E+00	1.08E-02	1.86E-02	2.96E-03	6.23E-03	potential residence	0.02	2027	0.00
564690_4183630	564690	4183630	3.83E-02	3.53E-02	3.13E-02	0.00E+00	2.45E-02	4.21E-02	6.72E-03	1.41E-02	potential residence	0.04	2027	0.01
564750_4183630	564750	4183630	5.94E-02	5.48E-02	4.86E-02	0.00E+00	2.05E-02	3.53E-02	5.63E-03	1.18E-02	potential residence	0.06	2022	0.01
564770_4183630	564770	4183630	6.06E-02	5.59E-02	4.96E-02	0.00E+00	1.93E-02	3.32E-02	5.29E-03	1.11E-02	potential residence	0.06	2022	0.01
564790_4183630	564790	4183630	6.00E-02	5.53E-02	4.91E-02	0.00E+00	1.82E-02	3.13E-02	5.00E-03	1.05E-02	potential residence	0.06	2022	0.01
564810_4183630	564810	4183630	5.77E-02	5.33E-02	4.72E-02	0.00E+00	1.72E-02	2.96E-02	4.72E-03	9.93E-03	potential residence	0.06	2022	0.01
564830_4183630	564830	4183630	5.43E-02	5.01E-02	4.44E-02	0.00E+00	1.62E-02	2.79E-02	4.45E-03	9.36E-03	potential residence	0.05	2022	0.01
564890_4183630	564890	4183630	4.10E-02	3.78E-02	3.35E-02	0.00E+00	1.33E-02	2.29E-02	3.66E-03	7.70E-03	potential residence	0.04	2022	0.01
564910_4183630	564910	4183630	3.73E-02	3.44E-02	3.05E-02	0.00E+00	1.25E-02	2.15E-02	3.43E-03	7.22E-03	potential residence	0.04	2022	0.01
564250_4183650	564250	4183650	1.81E-03	1.67E-03	1.48E-03	0.00E+00	2.32E-03	3.99E-03	6.38E-04	1.34E-03	potential residence	0.00	2027	0.00
564270_4183650	564270	4183650	1.94E-03	1.78E-03	1.58E-03	0.00E+00	2.55E-03	4.38E-03	6.99E-04	1.47E-03	potential residence	0.00	2027	0.00
564290_4183650	564290	4183650	2.07E-03	1.91E-03	1.69E-03	0.00E+00	2.81E-03	4.82E-03	7.71E-04	1.62E-03	potential residence	0.00	2027	0.00
564310_4183650	564310	4183650	2.23E-03	2.05E-03	1.82E-03	0.00E+00	3.12E-03	5.36E-03	8.56E-04	1.80E-03	potential residence	0.01	2027	0.00
564330_4183650	564330	4183650	2.41E-03	2.21E-03	1.96E-03	0.00E+00	3.50E-03	6.01E-03	9.60E-04	2.02E-03	potential residence	0.01	2027	0.00
564350_4183650	564350	4183650	2.60E-03	2.39E-03	2.12E-03	0.00E+00	3.93E-03	6.75E-03	1.08E-03	2.27E-03	potential residence	0.01	2027	0.00
564370_4183650	564370	4183650	2.73E-03	2.51E-03	2.23E-03	0.00E+00	4.45E-03	7.64E-03	1.22E-03	2.57E-03	potential residence	0.01	2027	0.00
564390_4183650	564390	4183650	2.99E-03	2.75E-03	2.44E-03	0.00E+00	5.12E-03	8.79E-03	1.40E-03	2.95E-03	potential residence	0.01	2027	0.00
564410_4183650	564410	4183650	3.28E-03	3.02E-03	2.67E-03	0.00E+00	5.92E-03	1.02E-02	1.63E-03	3.42E-03	potential residence	0.01	2027	0.00
564430_4183650	564430	4183650	3.61E-03	3.33E-03	2.95E-03	0.00E+00	6.92E-03	1.19E-02	1.90E-03	3.99E-03	potential residence	0.01	2027	0.00
564450_4183650	564450	4183650	4.01E-03	3.69E-03	3.27E-03	0.00E+00	8.13E-03	1.40E-02	2.23E-03	4.69E-03	potential residence	0.01	2027	0.00
564670_4183650	564670	4183650	2.34E-02	2.16E-02	1.91E-02	0.00E+00	1.83E-02	3.14E-02	5.02E-03	1.06E-02	potential residence	0.03	2027	0.01
564690_4183650	564690	4183650	2.74E-02	2.53E-02	2.24E-02	0.00E+00	1.77E-02	3.05E-02	4.86E-03	1.02E-02	potential residence	0.03	2027	0.01
564710_4183650	564710	4183650	3.26E-02	3.01E-02	2.66E-02	0.00E+00	1.71E-02	2.93E-02	4.68E-03	9.85E-03	potential residence	0.03	2022	0.01
564730_4183650	564730	4183650	3.54E-02	3.26E-02	2.89E-02	0.00E+00	1.62E-02	2.79E-02	4.46E-03	9.37E-03	potential residence	0.04	2022	0.01
564750_4183650	564750	4183650	3.74E-02	3.45E-02	3.06E-02	0.00E+00	1.54E-02	2.65E-02	4.23E-03	8.90E-03	potential residence	0.04	2022	0.01
564770_4183650	564770	4183650	3.86E-02	3.56E-02	3.15E-02	0.00E+00	1.47E-02	2.53E-02	4.04E-03	8.50E-03	potential residence	0.04	2022	0.01
564790_4183650	564790	4183650	3.87E-02	3.57E-02	3.17E-02	0.00E+00	1.41E-02	2.42E-02	3.86E-03	8.13E-03	potential residence	0.04	2022	0.01
564810_4183650	564810	4183650	3.80E-02	3.50E-02	3.10E-02	0.00E+00	1.34E-02	2.31E-02	3.69E-03	7.76E-03	potential residence	0.04	2022	0.01
564830_4183650	564830	4183650	3.65E-02	3.37E-02	2.99E-02	0.00E+00	1.28E-02	2.20E-02	3.52E-03	7.40E-03	potential residence	0.04	2022	0.01
564850_4183650	564850	4183650	3.45E-02	3.18E-02	2.82E-02	0.00E+00	1.22E-02	2.10E-02	3.35E-03	7.04E-03	potential residence	0.03	2022	0.01
564870_4183650	564870	4183650	3.24E-02	2.98E-02	2.65E-02	0.00E+00	1.16E-02	2.00E-02	3.18E-03	6.70E-03	potential residence	0.03	2022	0.01
564890_4183650	564890	4183650	3.00E-02	2.76E-02	2.45E-02	0.00E+00	1.10E-02	1.89E-02	3.01E-03	6.34E-03	potential residence	0.03	2022	0.01
564910_4183650	564910	4183650	2.79E-02	2.57E-02	2.28E-02	0.00E+00	1.03E-02	1.77E-02	2.83E-03	5.94E-03	potential residence	0.03	2022	0.01
564270_4183670	564270	4183670	1.83E-03	1.69E-03	1.49E-03	0.00E+00	2.45E-03	4.22E-03	6.74E-04	1.42E-03	potential residence	0.00	2027	0.00
564290_4183670	564290	4183670	1.96E-03	1.80E-03	1.60E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	potential residence	0.00	2027	0.00
564310_4183670	564310	4183670	2.16E-03	1.99E-03	1.76E-03	0.00E+00	3.00E-03	5.16E-03	8.23E-04	1.73E-03	potential residence	0.01	2027	0.00
564330_4183670	564330	4183670	2.26E-03	2.08E-03	1.85E-03	0.00E+00	3.35E-03	5.75E-03	9.19E-04	1.93E-03	potential residence	0.01	2027	0.00
564350_4183670	564350	4183670	2.45E-03	2.25E-03	2.00E-03	0.00E+00	3.76E-03	6.46E-03	1.03E-03	2.17E-03	potential residence	0.01	2027	0.00
564370_4183670	564370	4183670	2.64E-03	2.43E-03	2.16E-03	0.00E+00	4.24E-03	7.29E-03	1.16E-03	2.45E-03	potential residence	0.01	2027	0.00
564390_4183670	564390	4183670	2.88E-03	2.65E-03	2.35E-03	0.00E+00	4.84E-03	8.31E-03	1.33E-03	2.79E-03	potential residence	0.01	2027	0.00
564410_4183670	564410	4183670	3.15E-03	2.90E-03	2.58E-03	0.00E+00	5.54E-03	9.51E-03	1.52E-03	3.19E-03	potential residence	0.01	2027	0.00
564430_4183670	564430	4183670	3.47E-03	3.20E-03	2.83E-03	0.00E+00	6.36E-03	1.09E-02	1.74E-03	3.67E-03	potential residence	0.01	2027	0.00
564450_4183670	564450	4183670	3.84E-03	3.53E-03	3.13E-03	0.00E+00	7.29E-03	1.25E-02	2.00E-03	4.21E-03	potential residence	0.01	2027	0.00
564470_4183670	564470	4183670	4.29E-03	3.95E-03	3.50E-03	0.00E+00	8.33E-03	1.43E-02	2.29E-03	4.81E-03	potential residence	0.01	2027	0.00
564650_4183670	564650	4183670	1.60E-02	1.47E-02	1.30E-02	0.00E+00	1.34E-02	2.30E-02	3.68E-03	7.73E-03	potential residence	0.02	2027	0.00
564670_4183670	564670	4183670	1.83E-02	1.69E-02	1.50E-02	0.00E+00	1.37E-02	2.36E-02	3.76E-03	7.92E-03	potential residence	0.02	2027	0.00
564730_4183670	564730	4183670	2.47E-02	2.28E-02	2.02E-02	0.00E+00	1.25E-02	2.16E-02	3.44E-03	7.24E-03	potential residence	0.02	2022	0.00
564750_4183670	564750	4183670	2.57E-02	2.38E-02	2.11E-02	0.00E+00	1.20E-02	2.06E-02	3.29E-03	6.92E-03	potential residence	0.03	2022	0.01
564770_4183670	564770	4183670	2.66E-02	2.46E-02	2.18E-02	0.00E+00	1.16E-02	1.99E-02	3.17E-03	6.67E-03	potential residence	0.03	2022	0.01
564790_4183670	564790	4183670	2.68E-02	2.47E-02	2.19E-02	0.00E+00	1.11E-02	1.91E-02	3.04E-03	6.40E-03	potential residence	0.03	2022	0.01
564810_4183670	564810	4183670	2.66E-02	2.45E-02	2.18E-02	0.00E+00	1.07E-02	1.83E-02	2.93E-03	6.16E-03	potential residence	0.03	2022	0.01
564830_4183670	564830	4183670	2.59E-02	2.39E-02	2.12E-02	0.00E+00	1.02E-02	1.76E-02	2.81E-03	5.91E-03	potential residence	0.03	2022	0.01
564850_4183670	564850	4183670	2.55E-02	2.36E-02	2.09E-02	0.00E+00	9.90E-03	1.70E-02	2.72E-03	5.71E-03	potential residence	0.03	2022	0.01

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Unmitigated HI Risk

Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	Max DPM	Max Year	HI
			Unmitigated									C_{DPM}/REL		
564870_4183670	564870	4183670	2.39E-02	2.21E-02	1.96E-02	0.00E+00	9.37E-03	1.61E-02	2.57E-03	5.40E-03	potential residence	0.02	2022	0.00
564890_4183670	564890	4183670	2.25E-02	2.08E-02	1.84E-02	0.00E+00	8.95E-03	1.54E-02	2.46E-03	5.17E-03	potential residence	0.02	2022	0.00
564910_4183670	564910	4183670	2.13E-02	1.97E-02	1.74E-02	0.00E+00	8.60E-03	1.48E-02	2.36E-03	4.96E-03	potential residence	0.02	2022	0.00
564930_4183670	564930	4183670	1.99E-02	1.83E-02	1.63E-02	0.00E+00	8.27E-03	1.42E-02	2.27E-03	4.77E-03	potential residence	0.02	2022	0.00
564270_4183690	564270	4183690	1.77E-03	1.63E-03	1.45E-03	0.00E+00	2.37E-03	4.07E-03	6.50E-04	1.37E-03	potential residence	0.00	2027	0.00
564290_4183690	564290	4183690	1.89E-03	1.74E-03	1.54E-03	0.00E+00	2.61E-03	4.48E-03	7.15E-04	1.50E-03	potential residence	0.00	2027	0.00
564310_4183690	564310	4183690	2.03E-03	1.87E-03	1.66E-03	0.00E+00	2.88E-03	4.96E-03	7.91E-04	1.66E-03	potential residence	0.00	2027	0.00
564330_4183690	564330	4183690	2.19E-03	2.01E-03	1.78E-03	0.00E+00	3.21E-03	5.51E-03	8.80E-04	1.85E-03	potential residence	0.01	2027	0.00
564350_4183690	564350	4183690	2.36E-03	2.17E-03	1.93E-03	0.00E+00	3.59E-03	6.16E-03	9.84E-04	2.07E-03	potential residence	0.01	2027	0.00
564370_4183690	564370	4183690	2.56E-03	2.35E-03	2.09E-03	0.00E+00	4.03E-03	6.92E-03	1.11E-03	2.32E-03	potential residence	0.01	2027	0.00
564390_4183690	564390	4183690	2.78E-03	2.56E-03	2.27E-03	0.00E+00	4.54E-03	7.80E-03	1.24E-03	2.62E-03	potential residence	0.01	2027	0.00
564410_4183690	564410	4183690	3.04E-03	2.80E-03	2.48E-03	0.00E+00	5.12E-03	8.80E-03	1.41E-03	2.96E-03	potential residence	0.01	2027	0.00
564430_4183690	564430	4183690	3.33E-03	3.06E-03	2.72E-03	0.00E+00	5.59E-03	9.61E-03	1.53E-03	3.23E-03	potential residence	0.01	2027	0.00
564450_4183690	564450	4183690	3.67E-03	3.38E-03	3.00E-03	0.00E+00	6.26E-03	1.08E-02	1.72E-03	3.61E-03	potential residence	0.01	2027	0.00
564470_4183690	564470	4183690	4.10E-03	3.78E-03	3.35E-03	0.00E+00	7.19E-03	1.24E-02	1.97E-03	4.15E-03	potential residence	0.01	2027	0.00
564570_4183690	564570	4183690	7.81E-03	7.20E-03	6.38E-03	0.00E+00	9.62E-03	1.65E-02	2.64E-03	5.55E-03	potential residence	0.02	2027	0.00
564590_4183690	564590	4183690	8.97E-03	8.27E-03	7.33E-03	0.00E+00	9.86E-03	1.69E-02	2.70E-03	5.69E-03	potential residence	0.02	2027	0.00
564650_4183690	564650	4183690	1.31E-02	1.21E-02	1.07E-02	0.00E+00	1.03E-02	1.77E-02	2.83E-03	5.95E-03	potential residence	0.02	2027	0.00
564670_4183690	564670	4183690	1.44E-02	1.33E-02	1.17E-02	0.00E+00	1.03E-02	1.77E-02	2.83E-03	5.95E-03	potential residence	0.02	2027	0.00
564730_4183690	564730	4183690	1.84E-02	1.69E-02	1.50E-02	0.00E+00	1.00E-02	1.72E-02	2.75E-03	5.77E-03	potential residence	0.02	2022	0.00
564750_4183690	564750	4183690	1.89E-02	1.74E-02	1.54E-02	0.00E+00	9.61E-03	1.65E-02	2.63E-03	5.54E-03	potential residence	0.02	2022	0.00
564770_4183690	564770	4183690	1.94E-02	1.79E-02	1.58E-02	0.00E+00	9.28E-03	1.59E-02	2.55E-03	5.35E-03	potential residence	0.02	2022	0.00
564790_4183690	564790	4183690	1.95E-02	1.80E-02	1.60E-02	0.00E+00	8.93E-03	1.53E-02	2.45E-03	5.15E-03	potential residence	0.02	2022	0.00
564810_4183690	564810	4183690	1.94E-02	1.79E-02	1.58E-02	0.00E+00	8.58E-03	1.48E-02	2.35E-03	4.95E-03	potential residence	0.02	2022	0.00
564830_4183690	564830	4183690	1.90E-02	1.76E-02	1.56E-02	0.00E+00	8.27E-03	1.42E-02	2.27E-03	4.77E-03	potential residence	0.02	2022	0.00
564850_4183690	564850	4183690	1.86E-02	1.72E-02	1.52E-02	0.00E+00	8.02E-03	1.38E-02	2.20E-03	4.62E-03	potential residence	0.02	2022	0.00
564870_4183690	564870	4183690	1.82E-02	1.68E-02	1.49E-02	0.00E+00	7.81E-03	1.34E-02	2.14E-03	4.50E-03	potential residence	0.02	2022	0.00
564890_4183690	564890	4183690	1.75E-02	1.61E-02	1.43E-02	0.00E+00	7.50E-03	1.29E-02	2.06E-03	4.33E-03	potential residence	0.02	2022	0.00
564910_4183690	564910	4183690	1.66E-02	1.53E-02	1.36E-02	0.00E+00	7.21E-03	1.24E-02	1.98E-03	4.16E-03	potential residence	0.02	2022	0.00
564930_4183690	564930	4183690	1.56E-02	1.44E-02	1.28E-02	0.00E+00	6.94E-03	1.19E-02	1.90E-03	4.01E-03	potential residence	0.02	2022	0.00
564290_4183710	564290	4183710	1.84E-03	1.69E-03	1.50E-03	0.00E+00	2.52E-03	4.33E-03	6.91E-04	1.45E-03	potential residence	0.00	2027	0.00
564310_4183710	564310	4183710	1.97E-03	1.82E-03	1.61E-03	0.00E+00	2.78E-03	4.77E-03	7.62E-04	1.60E-03	potential residence	0.00	2027	0.00
564330_4183710	564330	4183710	2.12E-03	1.95E-03	1.73E-03	0.00E+00	3.07E-03	5.28E-03	8.43E-04	1.77E-03	potential residence	0.01	2027	0.00
564350_4183710	564350	4183710	2.29E-03	2.11E-03	1.87E-03	0.00E+00	3.41E-03	5.87E-03	9.37E-04	1.97E-03	potential residence	0.01	2027	0.00
564370_4183710	564370	4183710	2.48E-03	2.28E-03	2.02E-03	0.00E+00	3.80E-03	6.53E-03	1.04E-03	2.19E-03	potential residence	0.01	2027	0.00
564390_4183710	564390	4183710	2.68E-03	2.47E-03	2.19E-03	0.00E+00	4.11E-03	7.06E-03	1.13E-03	2.37E-03	potential residence	0.01	2027	0.00
564410_4183710	564410	4183710	2.91E-03	2.68E-03	2.38E-03	0.00E+00	4.54E-03	7.80E-03	1.25E-03	2.62E-03	potential residence	0.01	2027	0.00
564430_4183710	564430	4183710	3.20E-03	2.95E-03	2.62E-03	0.00E+00	5.03E-03	8.65E-03	1.38E-03	2.90E-03	potential residence	0.01	2027	0.00
564450_4183710	564450	4183710	3.54E-03	3.26E-03	2.89E-03	0.00E+00	5.53E-03	9.50E-03	1.52E-03	3.19E-03	potential residence	0.01	2027	0.00
564470_4183710	564470	4183710	3.93E-03	3.62E-03	3.21E-03	0.00E+00	6.00E-03	1.03E-02	1.65E-03	3.46E-03	potential residence	0.01	2027	0.00
564490_4183710	564490	4183710	4.40E-03	4.06E-03	3.60E-03	0.00E+00	6.43E-03	1.11E-02	1.76E-03	3.71E-03	potential residence	0.01	2027	0.00
564530_4183710	564530	4183710	5.59E-03	5.15E-03	4.57E-03	0.00E+00	7.17E-03	1.23E-02	1.97E-03	4.14E-03	potential residence	0.01	2027	0.00
564550_4183710	564550	4183710	6.28E-03	5.79E-03	5.14E-03	0.00E+00	7.42E-03	1.27E-02	2.03E-03	4.28E-03	potential residence	0.01	2027	0.00
564570_4183710	564570	4183710	7.10E-03	6.54E-03	5.80E-03	0.00E+00	7.63E-03	1.31E-02	2.09E-03	4.40E-03	potential residence	0.01	2027	0.00
564590_4183710	564590	4183710	8.01E-03	7.39E-03	6.55E-03	0.00E+00	7.80E-03	1.34E-02	2.14E-03	4.50E-03	potential residence	0.01	2027	0.00
564650_4183710	564650	4183710	1.08E-02	9.95E-03	8.82E-03	0.00E+00	8.18E-03	1.41E-02	2.25E-03	4.72E-03	potential residence	0.01	2027	0.00
564670_4183710	564670	4183710	1.16E-02	1.07E-02	9.50E-03	0.00E+00	8.47E-03	1.46E-02	2.32E-03	4.89E-03	potential residence	0.01	2027	0.00
564690_4183710	564690	4183710	1.24E-02	1.15E-02	1.02E-02	0.00E+00	8.45E-03	1.45E-02	2.32E-03	4.88E-03	potential residence	0.01	2027	0.00
564710_4183710	564710	4183710	1.30E-02	1.20E-02	1.06E-02	0.00E+00	8.31E-03	1.43E-02	2.28E-03	4.80E-03	potential residence	0.01	2027	0.00
564730_4183710	564730	4183710	1.41E-02	1.30E-02	1.15E-02	0.00E+00	8.13E-03	1.40E-02	2.23E-03	4.69E-03	potential residence	0.01	2022	0.00
564750_4183710	564750	4183710	1.44E-02	1.33E-02	1.18E-02	0.00E+00	7.88E-03	1.35E-02	2.16E-03	4.55E-03	potential residence	0.01	2022	0.00
564770_4183710	564770	4183710	1.46E-02	1.35E-02	1.20E-02	0.00E+00	7.60E-03	1.31E-02	2.08E-03	4.38E-03	potential residence	0.01	2022	0.00
564790_4183710	564790	4183710	1.48E-02	1.36E-02	1.21E-02	0.00E+00	7.35E-03	1.26E-02	2.01E-03	4.24E-03	potential residence	0.01	2022	0.00
564810_4183710	564810	4183710	1.48E-02	1.36E-02	1.21E-02	0.00E+00	7.08E-03	1.22E-02	1.94E-03	4.09E-03	potential residence	0.01	2022	0.00
564830_4183710	564830	4183710	1.46E-02	1.34E-02	1.19E-02	0.00E+00	6.82E-03	1.17E-02	1.87E-03	3.94E-03	potential residence	0.01	2022	0.00
564850_4183710	564850	4183710	1.42E-02	1.31E-02	1.16E-02	0.00E+00	6.56E-03	1.13E-02	1.80E-03	3.78E-03	potential residence	0.01	2022	0.00
564870_4183710	564870	4183710	1.38E-02	1.28E-02	1.13E-02	0.00E+00	6.36E-03	1.09E-02	1.75E-03	3.67E-03	potential residence	0.01	2022	0.00
564890_4183710	564890	4183710	1.38E-02	1.27E-02	1.13E-02	0.00E+00	6.30E-03	1.08E-02	1.73E-03	3.63E-03	potential residence	0.01	2022	0.00
564910_4183710	564910	4183710	1.32E-02	1.22E-02	1.08E-02	0.00E+00	6.08E-03	1.04E-02	1.67E-03	3.51E-03	potential residence	0.01	2022	0.00
564930_4183710	564930	4183710	1.26E-02	1.16E-02	1.03E-02	0.00E+00	5.87E-03	1.01E-02	1.61E-03	3.39E-03	potential residence	0.01	2022	0.00
564950_4183710	564950	4183710	1.21E-02	1.11E-02	9.87E-03	0.00E+00	5.65E-03	9.70E-03	1.55E-03	3.26E-03	potential residence	0.01	2022	0.00
564310_4183730	564310	4183730	1.92E-03	1.77E-03	1.57E-03	0.00E+00	2.66E-03	4.58E-03	7.31E-04	1.54E-03	potential residence	0.00	2027	0.00
564330_4183730	564330	4183730	2.05E-03	1.89E-03	1.68E-03	0.00E+00	2.85E-03	4.90E-03	7.82E-04	1.64E-03	potential residence	0.00	2027	0.00
564350_4183730	564350	4183730	2.22E-03	2.04E-03	1.81E-03	0.00E+00	3.14E-03	5.40E-03	8.63E-04	1.81E-03	potential residence	0.01	2027	0.00
564370_4183730	564370	4183730	2.40E-03	2.21E-03	1.96E-03	0.00E+00	3.48E-03	5.97E-03	9.54E-04	2.01E-03	potential residence	0.01	2027	0.00
564390_4183730	564390	4183730	2.60E-03	2.39E-03	2.12E-03	0.00E+00	3.80E-03	6.53E-03	1.04E-03	2.19E-03	potential residence	0.01	2027	0.00
564410_4183730	564410	4183730	2.82E-03	2.60E-03	2.31E-03	0.00E+00	4.15E-03	7.13E-03	1.14E-03	2.39E-03	potential residence	0.01	2027	0.00
564430_4183730	564430	4183730	3.10E-03	2.86E-03	2.54E-03	0.00E+00	4.53E-03	7.78E-03	1.24E-03	2.61E-03	potential residence	0.01	2027	0.00
564450_4183730	564450	4183730	3.43E-03	3.16E-03	2.80E-03	0.00E+00	4.88E-03	8.39E-03	1.34E-03	2.82E-03	potential residence	0.01	2027	0.00
564470_4183730	564470	4183730	3.79E-03	3.50E-03	3.10E-03	0.00E+00	5.20E-03	8.93E-03	1.43E-03	3.00E-03	potential residence	0.01	2027	0.00
564490_4183730	564490	4183730	4.22E-03	3.89E-03	3.45E-03	0.00E+00	5.48E-03	9.42E-03	1.50E-03	3.16E-03	potential residence	0.01	2027	0.00
564510_4183730	564510	4183730	4.70E-03	4.33E-03	3.84E-03	0.00E+00	5.73E-03	9.84E-03	1.57E-03	3.30E-03	potential residence	0.01	2027	0.00
564530_4183730	564530	4183730	5.23E-03	4.83E-03	4.28E-03	0.00E+00	5.95E-03	1.02E-02	1.63E-03	3.43E-03	potential residence	0.01	2027	0.00
564550_4183730	564550	4183730	5.81E-03	5.36E-03	4.75E-03	0.00E+00	6.12E-03	1.05E-02	1.68E-03	3.53E-03	potential residence	0.01	2027	0.00
564570_4183730	564570	4183730	6.46E-03	5.96E-03	5.28E-03	0.00E+00	6.27E-03	1.08E-02	1.72E-03	3.62E-03	potential residence	0.01	2027	0.00
564590_4183730	564590	4183730	7.14E-03	6.59E-03	5.84E-03	0.00E+00	6.38E-03	1.10E-02	1.75E-03	3.68E-03	potential residence	0.01	2027	0.00
564610_4183730	564610	4183730	7.82E-03	7.21E-03	6.40E-03	0.00E+00	6.50E-03	1.12E-02	1.78E-03	3.75E-03	potential residence	0.01	2027	0.00
564630_4183730	564630	4183730	8.46E-03	7.80E-03	6.92E-03	0.00E+00	6.61E-03	1.14E-02	1.81E-03	3.81E-03	potential residence	0.01	2027	0.00
564650_4183730	564650	4183730	9.01E-03	8.31E-03	7.37E-03	0.00E+00	6.68E-03	1.15E-02	1.83E-03	3.85E-03	potential residence	0.01	2027	0.00
564670_4183730	564670	4183730	9.53E-03	8.79E-03	7.79E-03	0.00E+00	6.73E-03	1.16E-02	1.85E-03	3.88E-03	potential residence	0.01	2027	0.00
564690_4183730	564690	4183730	1.00E-02	9.25E-03	8.20E-03	0.00E+00	6.90E-03	1.19E-02	1.89E-03	3.98E-03	potential residence	0.01	2027	0.00
564710_4183730	564710	4183730	1.04E-02	9.58E-03	8.49E-03	0.00E+00	6.83E-03	1.17E-02	1.87E-03	3.94E-03	potential residence	0.01	2027	0.00
564730_4183730	564730	4183730	1.07E-02	9.86E-03	8.74E-03	0.00E+00	6.71E-03	1.15E-02	1.84E-03	3.87E-03	potential residence	0.01	2027	0.00
564750_4183730	564750	4183730	1.14E-02	1.05E-02	9.33E-03	0.00E+00	6.57E-03	1.13E-02	1.80E-03	3.79E-03	potential residence	0.01	2022	0.00
564770_4183730	564770	4183730	1.16E-02	1.07E-02	9.46E-03	0.00E+00	6.38E-03	1.10E-02	1.75E-03	3.68E-03	potential residence	0.01	2022	0.00
564790_4183730	564790	4183730	1.16E-02	1.07E-02	9.48E-03	0.00E+00	6.16E-03	1.06E-02	1.69E-03	3.55E-03	potential residence	0.01	2022	0.00
564810_4183730	564810	4183730	1.16E-02	1.07E-02	9.52E-03	0.00E+00	5.97E-03	1.03E-02	1.64E-03	3.44E-03	potential residence	0.01	2022	0.00
564830_4183730	564830	4183730	1.16E-02	1.07E-02	9.47E-03	0.00E+00	5.77E-03	9.91E-03	1.58E-03	3.33E-03	potential residence	0.01	2022	0.00
564850_4183730	564850	4183730	1.14E-02	1.05E-02	9.34E-03	0.00E+00	5.58E-03	9.58E-03	1.53E-03	3.22E-03	potential residence	0.01	2022	0.00
564870_4183730	564870	4183730	1.10E-02	1.02E-02	9.02E-03	0.00E+00	5.35E-03	9.20E-03	1.47E-03	3.09E-03	potential residence	0.01	2022	0.00
564890_4183730	564890	4183730	1.13E-02	1.04E-02	9.21E-03	0.00E+00	5.36E-03	9.21E-03	1.47E-03	3.09E-03	potential residence	0.01	2022	0.00
564910_4183730	564910	4183730	1.08E-02	9.96E-03	8.83E-03	0.00E+00	5.18E-03	8.91E-03	1.42E-03	2.99E-03	potential residence	0.01	2022	0.00
564930_4183730	564930	4183730	1.04E-02	9.57E-03	8.49E-03	0.00E+00	5.02E-03	8.63E-03	1.38E-03	2.90E-03	potential residence	0.01	2022	0.00
564950_4183730	564950	4183730	9.98E-03	9.20E-03	8.16E-03	0.00E+00	4.85E-03	8.33E-03	1.33E-03	2.80E-03	potential residence	0.01	2022	0.00
564330_4183750	564330	4183750	1.99E-03	1.84E-03	1.63E-03	0.00E+00	2.70E-03	4.64E-03	7.41E-04	1.56E-03	potential residence	0.00	2027	0.00
564350_4183750	564350	4183750	2.15E-03	1.98E-03	1.76E-03	0.00E+00	2.96E-03	5.09E-03	8.13E-04	1.71E-03	potential residence	0.01	2027	0.00
564370_4183750	564370	4183750	2.33E-03	2.14E-03	1.90E-03	0.00E+00	3.23E-03	5.55E-03	8.86E-04	1.86E-03	potential residence	0.01	2027	0.00
564390_4183750	564390	4183750	2.53E-03	2.33E-03	2.07E-03	0.00E+00	3.51E-03	6.04E-03	9.64E-04	2.03E-03	potential residence	0.01	2027	0.00
564410_4183750	564410	4183750	2.75E-03	2.53E-03	2.25E-03	0.00E+00	3.79E-03	6.51E-03	1.04E-03	2.19E-03	potential residence	0.01	2027	0.00
564430_4183750	564430	4183750	3.01E-03	2.77E-03	2.46E-03	0.00E+00	4.06E-03	6.97E-03	1.11E-03	2.34E-03	potential residence	0.01	2027	0.00
564450_4183750	564450	4183750	3.31E-03	3.05E-03	2.70E-03	0.00E+00	4.30E-03	7.39E-03	1.18E-03	2.48E-03	potential residence	0.01	2027	0.00
564470_4183750	564470	4183750	3.63E-03	3.35E-03	2.97E-03	0.00E+00	4.50E-03	7.73E-03	1.23E-03	2.59E-03	potential residence	0.01	2027	0.00
564490_4183750	564490	4183750	4.01E-03	3.70E-03	3.28E-03	0.00E+00	4.69E-03	8.05E-03	1.29E-03	2.70E-03	potential residence	0.01	2027	0.00
564510_4183750	564510	4183750	4.44E-03	4.10E-03	3.63E-03	0.00E+00	4.89E-03	8.40E-03	1.34E-03	2.82E-03	potential residence	0.01	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Unmitigated HI Risk

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	C_{DPM}/REL Max DPM	Max Year	HI
564530_418375C	564530	4183750	4.86E-03	4.48E-03	3.97E-03	0.00E+00	5.01E-03	8.61E-03	1.37E-03	2.89E-03	potential residence	0.01	2027	0.00
564550_418375C	564550	4183750	5.35E-03	4.94E-03	4.38E-03	0.00E+00	5.16E-03	8.87E-03	1.42E-03	2.98E-03	potential residence	0.01	2027	0.00
564570_418375C	564570	4183750	5.84E-03	5.38E-03	4.77E-03	0.00E+00	5.25E-03	9.02E-03	1.44E-03	3.03E-03	potential residence	0.01	2027	0.00
564590_418375C	564590	4183750	6.34E-03	5.84E-03	5.18E-03	0.00E+00	5.33E-03	9.17E-03	1.46E-03	3.08E-03	potential residence	0.01	2027	0.00
564610_418375C	564610	4183750	6.83E-03	6.30E-03	5.58E-03	0.00E+00	5.43E-03	9.34E-03	1.49E-03	3.14E-03	potential residence	0.01	2027	0.00
564630_418375C	564630	4183750	7.21E-03	6.65E-03	5.90E-03	0.00E+00	5.47E-03	9.41E-03	1.50E-03	3.16E-03	potential residence	0.01	2027	0.00
564650_418375C	564650	4183750	7.57E-03	6.98E-03	6.19E-03	0.00E+00	5.53E-03	9.50E-03	1.52E-03	3.19E-03	potential residence	0.01	2027	0.00
564670_418375C	564670	4183750	7.87E-03	7.26E-03	6.43E-03	0.00E+00	5.54E-03	9.52E-03	1.52E-03	3.20E-03	potential residence	0.01	2027	0.00
564690_418375C	564690	4183750	8.22E-03	7.58E-03	6.72E-03	0.00E+00	5.59E-03	9.60E-03	1.53E-03	3.22E-03	potential residence	0.01	2027	0.00
564710_418375C	564710	4183750	8.47E-03	7.81E-03	6.93E-03	0.00E+00	5.57E-03	9.58E-03	1.53E-03	3.22E-03	potential residence	0.01	2027	0.00
564730_418375C	564730	4183750	8.69E-03	8.01E-03	7.10E-03	0.00E+00	5.64E-03	9.69E-03	1.55E-03	3.25E-03	potential residence	0.01	2027	0.00
564750_418375C	564750	4183750	9.25E-03	8.53E-03	7.56E-03	0.00E+00	5.55E-03	9.54E-03	1.52E-03	3.20E-03	potential residence	0.01	2027	0.00
564770_418375C	564770	4183750	9.36E-03	8.63E-03	7.65E-03	0.00E+00	5.43E-03	9.32E-03	1.49E-03	3.13E-03	potential residence	0.01	2022	0.00
564790_418375C	564790	4183750	9.39E-03	8.67E-03	7.68E-03	0.00E+00	5.26E-03	9.05E-03	1.44E-03	3.04E-03	potential residence	0.01	2022	0.00
564810_418375C	564810	4183750	9.44E-03	8.71E-03	7.72E-03	0.00E+00	5.11E-03	8.79E-03	1.40E-03	2.95E-03	potential residence	0.01	2022	0.00
564830_418375C	564830	4183750	9.46E-03	8.73E-03	7.74E-03	0.00E+00	4.97E-03	8.53E-03	1.36E-03	2.87E-03	potential residence	0.01	2022	0.00
564850_418375C	564850	4183750	9.43E-03	8.70E-03	7.71E-03	0.00E+00	4.83E-03	8.30E-03	1.33E-03	2.79E-03	potential residence	0.01	2022	0.00
564870_418375C	564870	4183750	9.36E-03	8.64E-03	7.66E-03	0.00E+00	4.72E-03	8.11E-03	1.29E-03	2.72E-03	potential residence	0.01	2022	0.00
564890_418375C	564890	4183750	9.34E-03	8.62E-03	7.64E-03	0.00E+00	4.62E-03	7.94E-03	1.27E-03	2.67E-03	potential residence	0.01	2022	0.00
564910_418375C	564910	4183750	9.03E-03	8.33E-03	7.39E-03	0.00E+00	4.47E-03	7.68E-03	1.23E-03	2.58E-03	potential residence	0.01	2022	0.00
564930_418375C	564930	4183750	8.70E-03	8.02E-03	7.11E-03	0.00E+00	4.34E-03	7.46E-03	1.19E-03	2.50E-03	potential residence	0.01	2022	0.00
564950_418375C	564950	4183750	8.35E-03	7.70E-03	6.83E-03	0.00E+00	4.18E-03	7.19E-03	1.15E-03	2.41E-03	potential residence	0.01	2022	0.00
564370_418377C	564370	4183770	2.27E-03	2.09E-03	1.85E-03	0.00E+00	3.00E-03	5.16E-03	8.23E-04	1.73E-03	potential residence	0.01	2027	0.00
564390_418377C	564390	4183770	2.45E-03	2.26E-03	2.00E-03	0.00E+00	3.22E-03	5.53E-03	8.82E-04	1.86E-03	potential residence	0.01	2027	0.00
564410_418377C	564410	4183770	2.67E-03	2.46E-03	2.18E-03	0.00E+00	3.43E-03	5.90E-03	9.41E-04	1.98E-03	potential residence	0.01	2027	0.00
564430_418377C	564430	4183770	2.90E-03	2.67E-03	2.37E-03	0.00E+00	3.61E-03	6.20E-03	9.90E-04	2.08E-03	potential residence	0.01	2027	0.00
564450_418377C	564450	4183770	3.17E-03	2.92E-03	2.59E-03	0.00E+00	3.78E-03	6.49E-03	1.04E-03	2.18E-03	potential residence	0.01	2027	0.00
564470_418377C	564470	4183770	3.46E-03	3.19E-03	2.83E-03	0.00E+00	3.91E-03	6.71E-03	1.07E-03	2.25E-03	potential residence	0.01	2027	0.00
564490_418377C	564490	4183770	3.79E-03	3.49E-03	3.10E-03	0.00E+00	4.05E-03	6.95E-03	1.11E-03	2.34E-03	potential residence	0.01	2027	0.00
564510_418377C	564510	4183770	4.16E-03	3.84E-03	3.40E-03	0.00E+00	4.20E-03	7.22E-03	1.15E-03	2.43E-03	potential residence	0.01	2027	0.00
564530_418377C	564530	4183770	4.53E-03	4.18E-03	3.71E-03	0.00E+00	4.33E-03	7.44E-03	1.19E-03	2.50E-03	potential residence	0.01	2027	0.00
564550_418377C	564550	4183770	4.90E-03	4.51E-03	4.00E-03	0.00E+00	4.42E-03	7.59E-03	1.21E-03	2.55E-03	potential residence	0.01	2027	0.00
564570_418377C	564570	4183770	5.28E-03	4.87E-03	4.32E-03	0.00E+00	4.50E-03	7.74E-03	1.24E-03	2.60E-03	potential residence	0.01	2027	0.00
564590_418377C	564590	4183770	5.63E-03	5.19E-03	4.60E-03	0.00E+00	4.55E-03	7.82E-03	1.25E-03	2.62E-03	potential residence	0.01	2027	0.00
564610_418377C	564610	4183770	5.92E-03	5.46E-03	4.84E-03	0.00E+00	4.57E-03	7.85E-03	1.25E-03	2.64E-03	potential residence	0.01	2027	0.00
564630_418377C	564630	4183770	6.18E-03	5.70E-03	5.05E-03	0.00E+00	4.60E-03	7.91E-03	1.26E-03	2.66E-03	potential residence	0.01	2027	0.00
564650_418377C	564650	4183770	6.47E-03	5.97E-03	5.29E-03	0.00E+00	4.68E-03	8.04E-03	1.28E-03	2.70E-03	potential residence	0.01	2027	0.00
564670_418377C	564670	4183770	6.70E-03	6.18E-03	5.48E-03	0.00E+00	4.70E-03	8.08E-03	1.29E-03	2.71E-03	potential residence	0.01	2027	0.00
564690_418377C	564690	4183770	6.90E-03	6.36E-03	5.64E-03	0.00E+00	4.72E-03	8.11E-03	1.29E-03	2.72E-03	potential residence	0.01	2027	0.00
564710_418377C	564710	4183770	7.10E-03	6.54E-03	5.80E-03	0.00E+00	4.84E-03	8.31E-03	1.33E-03	2.79E-03	potential residence	0.01	2027	0.00
564730_418377C	564730	4183770	7.25E-03	6.69E-03	5.93E-03	0.00E+00	4.81E-03	8.27E-03	1.32E-03	2.78E-03	potential residence	0.01	2027	0.00
564750_418377C	564750	4183770	7.67E-03	7.07E-03	6.27E-03	0.00E+00	4.75E-03	8.17E-03	1.30E-03	2.74E-03	potential residence	0.01	2027	0.00
564770_418377C	564770	4183770	7.74E-03	7.14E-03	6.33E-03	0.00E+00	4.67E-03	8.02E-03	1.28E-03	2.69E-03	potential residence	0.01	2027	0.00
564790_418377C	564790	4183770	7.79E-03	7.19E-03	6.37E-03	0.00E+00	4.56E-03	7.84E-03	1.25E-03	2.63E-03	potential residence	0.01	2027	0.00
564810_418377C	564810	4183770	7.84E-03	7.23E-03	6.41E-03	0.00E+00	4.44E-03	7.64E-03	1.22E-03	2.56E-03	potential residence	0.01	2022	0.00
564830_418377C	564830	4183770	7.89E-03	7.27E-03	6.45E-03	0.00E+00	4.34E-03	7.45E-03	1.19E-03	2.50E-03	potential residence	0.01	2022	0.00
564850_418377C	564850	4183770	7.95E-03	7.33E-03	6.50E-03	0.00E+00	4.25E-03	7.30E-03	1.17E-03	2.45E-03	potential residence	0.01	2022	0.00
564870_418377C	564870	4183770	8.00E-03	7.38E-03	6.54E-03	0.00E+00	4.17E-03	7.17E-03	1.14E-03	2.41E-03	potential residence	0.01	2022	0.00
564890_418377C	564890	4183770	7.85E-03	7.24E-03	6.42E-03	0.00E+00	4.03E-03	6.92E-03	1.11E-03	2.32E-03	potential residence	0.01	2022	0.00
564910_418377C	564910	4183770	7.61E-03	7.02E-03	6.22E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.24E-03	potential residence	0.01	2022	0.00
564930_418377C	564930	4183770	7.36E-03	6.79E-03	6.02E-03	0.00E+00	3.77E-03	6.48E-03	1.03E-03	2.18E-03	potential residence	0.01	2022	0.00
564410_418379C	564410	4183790	2.59E-03	2.38E-03	2.11E-03	0.00E+00	3.10E-03	5.33E-03	8.51E-04	1.79E-03	potential residence	0.01	2027	0.00
564430_418379C	564430	4183790	2.79E-03	2.57E-03	2.28E-03	0.00E+00	3.21E-03	5.52E-03	8.82E-04	1.85E-03	potential residence	0.01	2027	0.00
564450_418379C	564450	4183790	3.02E-03	2.79E-03	2.47E-03	0.00E+00	3.33E-03	5.71E-03	9.12E-04	1.92E-03	potential residence	0.01	2027	0.00
564470_418379C	564470	4183790	3.29E-03	3.04E-03	2.69E-03	0.00E+00	3.44E-03	5.90E-03	9.43E-04	1.98E-03	potential residence	0.01	2027	0.00
564490_418379C	564490	4183790	3.56E-03	3.28E-03	2.91E-03	0.00E+00	3.52E-03	6.05E-03	9.67E-04	2.03E-03	potential residence	0.01	2027	0.00
564510_418379C	564510	4183790	3.87E-03	3.57E-03	3.16E-03	0.00E+00	3.65E-03	6.27E-03	1.00E-03	2.10E-03	potential residence	0.01	2027	0.00
564530_418379C	564530	4183790	4.16E-03	3.84E-03	3.40E-03	0.00E+00	3.74E-03	6.43E-03	1.03E-03	2.16E-03	potential residence	0.01	2027	0.00
564550_418379C	564550	4183790	4.46E-03	4.11E-03	3.65E-03	0.00E+00	3.83E-03	6.59E-03	1.05E-03	2.21E-03	potential residence	0.01	2027	0.00
564570_418379C	564570	4183790	4.72E-03	4.35E-03	3.86E-03	0.00E+00	3.87E-03	6.65E-03	1.06E-03	2.23E-03	potential residence	0.01	2027	0.00
564590_418379C	564590	4183790	4.94E-03	4.56E-03	4.04E-03	0.00E+00	3.88E-03	6.67E-03	1.06E-03	2.24E-03	potential residence	0.01	2027	0.00
564610_418379C	564610	4183790	5.13E-03	4.73E-03	4.20E-03	0.00E+00	3.88E-03	6.67E-03	1.07E-03	2.24E-03	potential residence	0.01	2027	0.00
564630_418379C	564630	4183790	5.33E-03	4.91E-03	4.36E-03	0.00E+00	3.92E-03	6.73E-03	1.07E-03	2.26E-03	potential residence	0.01	2027	0.00
564650_418379C	564650	4183790	5.57E-03	5.14E-03	4.56E-03	0.00E+00	3.99E-03	6.86E-03	1.10E-03	2.30E-03	potential residence	0.01	2027	0.00
564670_418379C	564670	4183790	5.77E-03	5.32E-03	4.72E-03	0.00E+00	4.15E-03	7.13E-03	1.14E-03	2.39E-03	potential residence	0.01	2027	0.00
564690_418379C	564690	4183790	5.90E-03	5.45E-03	4.83E-03	0.00E+00	4.06E-03	6.97E-03	1.11E-03	2.34E-03	potential residence	0.01	2027	0.00
564710_418379C	564710	4183790	6.40E-03	5.90E-03	5.23E-03	0.00E+00	4.21E-03	7.23E-03	1.15E-03	2.43E-03	potential residence	0.01	2027	0.00
564730_418379C	564730	4183790	6.71E-03	6.19E-03	5.48E-03	0.00E+00	4.31E-03	7.41E-03	1.18E-03	2.49E-03	potential residence	0.01	2027	0.00
564750_418379C	564750	4183790	6.51E-03	6.00E-03	5.32E-03	0.00E+00	4.13E-03	7.10E-03	1.13E-03	2.39E-03	potential residence	0.01	2027	0.00
564770_418379C	564770	4183790	6.50E-03	5.99E-03	5.31E-03	0.00E+00	4.05E-03	6.96E-03	1.11E-03	2.34E-03	potential residence	0.01	2027	0.00
564790_418379C	564790	4183790	6.54E-03	6.03E-03	5.35E-03	0.00E+00	3.97E-03	6.83E-03	1.09E-03	2.29E-03	potential residence	0.01	2027	0.00
564810_418379C	564810	4183790	6.60E-03	6.09E-03	5.40E-03	0.00E+00	3.89E-03	6.69E-03	1.07E-03	2.25E-03	potential residence	0.01	2027	0.00
564830_418379C	564830	4183790	6.64E-03	6.12E-03	5.43E-03	0.00E+00	3.80E-03	6.54E-03	1.04E-03	2.19E-03	potential residence	0.01	2022	0.00
564850_418379C	564850	4183790	6.74E-03	6.22E-03	5.51E-03	0.00E+00	3.75E-03	6.44E-03	1.03E-03	2.16E-03	potential residence	0.01	2022	0.00
564870_418379C	564870	4183790	6.71E-03	6.19E-03	5.49E-03	0.00E+00	3.62E-03	6.23E-03	9.94E-04	2.09E-03	potential residence	0.01	2022	0.00
564890_418379C	564890	4183790	6.62E-03	6.11E-03	5.41E-03	0.00E+00	3.52E-03	6.06E-03	9.67E-04	2.03E-03	potential residence	0.01	2022	0.00
564910_418379C	564910	4183790	6.50E-03	5.99E-03	5.31E-03	0.00E+00	3.43E-03	5.89E-03	9.41E-04	1.98E-03	potential residence	0.01	2022	0.00
564930_418379C	564930	4183790	6.36E-03	5.87E-03	5.20E-03	0.00E+00	3.35E-03	5.76E-03	9.20E-04	1.93E-03	potential residence	0.01	2022	0.00
564450_418381C	564450	4183810	2.88E-03	2.66E-03	2.36E-03	0.00E+00	2.95E-03	5.07E-03	8.10E-04	1.70E-03	potential residence	0.01	2027	0.00
564470_418381C	564470	4183810	3.11E-03	2.87E-03	2.55E-03	0.00E+00	3.04E-03	5.22E-03	8.33E-04	1.75E-03	potential residence	0.01	2027	0.00
564490_418381C	564490	4183810	3.35E-03	3.09E-03	2.74E-03	0.00E+00	3.12E-03	5.36E-03	8.56E-04	1.80E-03	potential residence	0.01	2027	0.00
564510_418381C	564510	4183810	3.59E-03	3.31E-03	2.93E-03	0.00E+00	3.21E-03	5.51E-03	8.79E-04	1.85E-03	School	0.01	2027	0.00
564530_418381C	564530	4183810	3.83E-03	3.53E-03	3.13E-03	0.00E+00	3.29E-03	5.65E-03	9.03E-04	1.90E-03	School	0.01	2027	0.00
564550_418381C	564550	4183810	4.04E-03	3.73E-03	3.30E-03	0.00E+00	3.35E-03	5.76E-03	9.19E-04	1.93E-03	potential residence	0.01	2027	0.00
564570_418381C	564570	4183810	4.22E-03	3.89E-03	3.45E-03	0.00E+00	3.37E-03	5.78E-03	9.23E-04	1.94E-03	potential residence	0.01	2027	0.00
564590_418381C	564590	4183810	4.38E-03	4.04E-03	3.58E-03	0.00E+00	3.37E-03	5.80E-03	9.25E-04	1.95E-03	potential residence	0.01	2027	0.00
564610_418381C	564610	4183810	4.53E-03	4.18E-03	3.70E-03	0.00E+00	3.38E-03	5.82E-03	9.28E-04	1.95E-03	potential residence	0.01	2027	0.00
564630_418381C	564630	4183810	4.67E-03	4.31E-03	3.82E-03	0.00E+00	3.40E-03	5.84E-03	9.32E-04	1.96E-03	potential residence	0.01	2027	0.00
564650_418381C	564650	4183810	4.85E-03	4.47E-03	3.96E-03	0.00E+00	3.45E-03	5.93E-03	9.47E-04	1.99E-03	potential residence	0.01	2027	0.00
564670_418381C	564670	4183810	5.01E-03	4.62E-03	4.10E-03	0.00E+00	3.59E-03	6.17E-03	9.85E-04	2.07E-03	potential residence	0.01	2027	0.00
564690_418381C	564690	4183810	5.16E-03	4.76E-03	4.22E-03	0.00E+00	3.62E-03	6.22E-03	9.93E-04	2.09E-03	potential residence	0.01	2027	0.00
564710_418381C	564710	4183810	5.48E-03	5.05E-03	4.48E-03	0.00E+00	3.64E-03	6.25E-03	9.98E-04	2.10E-03	potential residence	0.01	2027	0.00
564730_418381C	564730	4183810	5.25E-03	4.85E-03	4.30E-03	0.00E+00	3.61E-03	6.20E-03	9.89E-04	2.08E-03	potential residence	0.01	2027	0.00
564750_418381C	564750	4183810	5.29E-03	4.88E-03	4.33E-03	0.00E+00	3.58E-03	6.16E-03	9.83E-04	2.07E-03	potential residence	0.01	2027	0.00
564770_418381C	564770	4183810	5.54E-03	5.11E-03	4.53E-03	0.00E+00	3.55E-03	6.10E-03	9.73E-04	2.05E-03	potential residence	0.01	2027	0.00
564790_418381C	564790	4183810	5.59E-03	5.15E-03	4.57E-03	0.00E+00	3.50E-03	6.01E-03	9.60E-04	2.02E-03	potential residence	0.01	2027	0.00
564810_418381C	564810	4183810	5.63E-03	5.19E-03	4.60E-03	0.00E+00	3.43E-03	5.90E-03	9.42E-04	1.98E-03	potential residence	0.01	2027	0.00
564830_418381C	564830	4183810	5.67E-03	5.23E-03	4.64E-03	0.00E+00	3.36E-03	5.78E-03	9.23E-04	1.94E-03	potential residence	0.01	2027	0.00
564850_418381C	564850	4183810	5.70E-03	5.26E-03	4.66E-03	0.00E+00	3.29E-03	5.66E-03	9.04E-04	1.90E-03	potential residence	0.01	2022	0.00
564870_418381C	564870	4183810	5.76E-03	5.31E-03	4.71E-03	0.00E+00	3.25E-03	5.59E-03	8.92E-04	1.88E-03	potential residence	0.01	2022	0.00
564890_418381C	564890	4183810	5.69E-03	5.24E-03	4.65E-03	0.00E+00	3.16E-03	5.43E-03	8.67E-04	1.82E-03	potential residence	0.01	2022	0.00
564910_418381C	564910	4183810	5.61E-03	5.17E-03	4.59E-03	0.00E+00	3.08E-03	5.30E-03	8.46E-04	1.78E-03	potential residence	0.01	2022	0.00
564930_418381C	564930	4183810	5.51E-03	5.08E-03	4.51E-03	0.00E+00	3.00E-03	5.15E-03	8.22E-04	1.73E-03	potential residence	0.01	2022	0.00
564470_418383C	564470	4183830	2.93E-03	2.71E-03	2.40E-03	0.00E+00	2.70E-03	4.65E-03	7.42E-04	1.56E-03	School	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Unmitigated HI Risk

			Unmitigated								Receptor Type	C_{DPM}/REL		
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564490_418383C	564490	4183830	3.11E-03	2.87E-03	2.55E-03	0.00E+00	2.76E-03	4.74E-03	7.56E-04	1.59E-03	School	0.00	2027	0.00
564510_418383C	564510	4183830	3.30E-03	3.04E-03	2.70E-03	0.00E+00	2.82E-03	4.85E-03	7.74E-04	1.63E-03	School	0.00	2027	0.00
564530_418383C	564530	4183830	3.48E-03	3.21E-03	2.84E-03	0.00E+00	2.89E-03	4.96E-03	7.92E-04	1.67E-03	School	0.00	2027	0.00
564550_418383C	564550	4183830	3.65E-03	3.37E-03	2.98E-03	0.00E+00	2.95E-03	5.07E-03	8.09E-04	1.70E-03	School	0.01	2027	0.00
564570_418383C	564570	4183830	3.79E-03	3.49E-03	3.09E-03	0.00E+00	2.97E-03	5.10E-03	8.14E-04	1.71E-03	potential residence	0.01	2027	0.00
564590_418383C	564590	4183830	3.90E-03	3.60E-03	3.19E-03	0.00E+00	2.97E-03	5.10E-03	8.14E-04	1.71E-03	potential residence	0.01	2027	0.00
564610_418383C	564610	4183830	4.01E-03	3.70E-03	3.28E-03	0.00E+00	2.97E-03	5.11E-03	8.15E-04	1.71E-03	potential residence	0.01	2027	0.00
564630_418383C	564630	4183830	4.14E-03	3.82E-03	3.38E-03	0.00E+00	2.99E-03	5.14E-03	8.21E-04	1.73E-03	potential residence	0.01	2027	0.00
564650_418383C	564650	4183830	4.27E-03	3.94E-03	3.49E-03	0.00E+00	3.02E-03	5.19E-03	8.29E-04	1.74E-03	potential residence	0.01	2027	0.00
564670_418383C	564670	4183830	4.40E-03	4.06E-03	3.60E-03	0.00E+00	3.14E-03	5.40E-03	8.62E-04	1.81E-03	potential residence	0.01	2027	0.00
564690_418383C	564690	4183830	4.48E-03	4.13E-03	3.66E-03	0.00E+00	3.15E-03	5.42E-03	8.65E-04	1.82E-03	potential residence	0.01	2027	0.00
564710_418383C	564710	4183830	4.52E-03	4.17E-03	3.70E-03	0.00E+00	3.16E-03	5.43E-03	8.67E-04	1.82E-03	potential residence	0.01	2027	0.00
564730_418383C	564730	4183830	4.55E-03	4.20E-03	3.72E-03	0.00E+00	3.16E-03	5.43E-03	8.68E-04	1.82E-03	potential residence	0.01	2027	0.00
564750_418383C	564750	4183830	4.77E-03	4.40E-03	3.90E-03	0.00E+00	3.16E-03	5.42E-03	8.66E-04	1.82E-03	potential residence	0.01	2027	0.00
564770_418383C	564770	4183830	4.79E-03	4.42E-03	3.92E-03	0.00E+00	3.13E-03	5.38E-03	8.60E-04	1.81E-03	potential residence	0.01	2027	0.00
564790_418383C	564790	4183830	4.83E-03	4.45E-03	3.95E-03	0.00E+00	3.10E-03	5.32E-03	8.50E-04	1.79E-03	potential residence	0.01	2027	0.00
564810_418383C	564810	4183830	4.86E-03	4.48E-03	3.97E-03	0.00E+00	3.05E-03	5.24E-03	8.36E-04	1.76E-03	potential residence	0.01	2027	0.00
564830_418383C	564830	4183830	4.91E-03	4.53E-03	4.01E-03	0.00E+00	3.00E-03	5.16E-03	8.23E-04	1.73E-03	potential residence	0.01	2027	0.00
564850_418383C	564850	4183830	4.94E-03	4.56E-03	4.04E-03	0.00E+00	2.95E-03	5.06E-03	8.09E-04	1.70E-03	potential residence	0.01	2027	0.00
564870_418383C	564870	4183830	4.95E-03	4.57E-03	4.05E-03	0.00E+00	2.89E-03	4.96E-03	7.92E-04	1.67E-03	potential residence	0.00	2027	0.00
564890_418383C	564890	4183830	4.94E-03	4.56E-03	4.04E-03	0.00E+00	2.83E-03	4.87E-03	7.77E-04	1.63E-03	potential residence	0.00	2022	0.00
564910_418383C	564910	4183830	4.87E-03	4.49E-03	3.98E-03	0.00E+00	2.76E-03	4.74E-03	7.56E-04	1.59E-03	potential residence	0.00	2022	0.00
564930_418383C	564930	4183830	4.83E-03	4.46E-03	3.95E-03	0.00E+00	2.69E-03	4.63E-03	7.38E-04	1.55E-03	potential residence	0.00	2022	0.00
564510_418385C	564510	4183850	3.05E-03	2.81E-03	2.49E-03	0.00E+00	2.53E-03	4.34E-03	6.93E-04	1.46E-03	School	0.00	2027	0.00
564530_418385C	564530	4183850	3.16E-03	2.92E-03	2.58E-03	0.00E+00	2.56E-03	4.40E-03	7.03E-04	1.48E-03	School	0.00	2027	0.00
564550_418385C	564550	4183850	3.30E-03	3.04E-03	2.70E-03	0.00E+00	2.62E-03	4.50E-03	7.18E-04	1.51E-03	School	0.00	2027	0.00
564570_418385C	564570	4183850	3.40E-03	3.14E-03	2.78E-03	0.00E+00	2.63E-03	4.53E-03	7.23E-04	1.52E-03	potential residence	0.00	2027	0.00
564590_418385C	564590	4183850	3.49E-03	3.22E-03	2.85E-03	0.00E+00	2.63E-03	4.52E-03	7.22E-04	1.52E-03	potential residence	0.00	2027	0.00
564610_418385C	564610	4183850	3.57E-03	3.30E-03	2.92E-03	0.00E+00	2.63E-03	4.51E-03	7.21E-04	1.52E-03	potential residence	0.00	2027	0.00
564630_418385C	564630	4183850	3.67E-03	3.39E-03	3.00E-03	0.00E+00	2.64E-03	4.53E-03	7.23E-04	1.52E-03	potential residence	0.00	2027	0.00
564650_418385C	564650	4183850	3.77E-03	3.48E-03	3.08E-03	0.00E+00	2.66E-03	4.56E-03	7.28E-04	1.53E-03	potential residence	0.00	2027	0.00
564670_418385C	564670	4183850	3.87E-03	3.57E-03	3.17E-03	0.00E+00	2.76E-03	4.75E-03	7.58E-04	1.59E-03	potential residence	0.00	2027	0.00
564690_418385C	564690	4183850	3.96E-03	3.65E-03	3.23E-03	0.00E+00	2.79E-03	4.79E-03	7.64E-04	1.61E-03	potential residence	0.00	2027	0.00
564710_418385C	564710	4183850	3.98E-03	3.67E-03	3.25E-03	0.00E+00	2.79E-03	4.80E-03	7.66E-04	1.61E-03	potential residence	0.00	2027	0.00
564730_418385C	564730	4183850	4.00E-03	3.68E-03	3.27E-03	0.00E+00	2.80E-03	4.81E-03	7.68E-04	1.62E-03	potential residence	0.00	2027	0.00
564750_418385C	564750	4183850	4.17E-03	3.85E-03	3.41E-03	0.00E+00	2.80E-03	4.81E-03	7.68E-04	1.62E-03	potential residence	0.00	2027	0.00
564770_418385C	564770	4183850	4.19E-03	3.86E-03	3.42E-03	0.00E+00	2.79E-03	4.79E-03	7.64E-04	1.61E-03	potential residence	0.00	2027	0.00
564790_418385C	564790	4183850	4.21E-03	3.88E-03	3.44E-03	0.00E+00	2.76E-03	4.75E-03	7.58E-04	1.59E-03	potential residence	0.00	2027	0.00
564810_418385C	564810	4183850	4.24E-03	3.91E-03	3.46E-03	0.00E+00	2.72E-03	4.68E-03	7.47E-04	1.57E-03	potential residence	0.00	2027	0.00
564830_418385C	564830	4183850	4.27E-03	3.94E-03	3.49E-03	0.00E+00	2.68E-03	4.61E-03	7.36E-04	1.55E-03	potential residence	0.00	2027	0.00
564850_418385C	564850	4183850	4.31E-03	3.97E-03	3.52E-03	0.00E+00	2.64E-03	4.54E-03	7.24E-04	1.52E-03	potential residence	0.00	2027	0.00
564870_418385C	564870	4183850	4.33E-03	3.99E-03	3.54E-03	0.00E+00	2.60E-03	4.46E-03	7.12E-04	1.50E-03	potential residence	0.00	2027	0.00
564890_418385C	564890	4183850	4.33E-03	3.99E-03	3.54E-03	0.00E+00	2.55E-03	4.38E-03	6.99E-04	1.47E-03	potential residence	0.00	2027	0.00
564910_418385C	564910	4183850	4.30E-03	3.96E-03	3.51E-03	0.00E+00	2.50E-03	4.29E-03	6.85E-04	1.44E-03	potential residence	0.00	2022	0.00
564550_418387C	564550	4183870	2.99E-03	2.76E-03	2.45E-03	0.00E+00	2.35E-03	4.03E-03	6.44E-04	1.35E-03	School	0.00	2027	0.00
564570_418387C	564570	4183870	3.06E-03	2.82E-03	2.50E-03	0.00E+00	2.35E-03	4.03E-03	6.44E-04	1.35E-03	potential residence	0.00	2027	0.00
564590_418387C	564590	4183870	3.13E-03	2.88E-03	2.56E-03	0.00E+00	2.34E-03	4.02E-03	6.43E-04	1.35E-03	potential residence	0.00	2027	0.00
564610_418387C	564610	4183870	3.19E-03	2.94E-03	2.61E-03	0.00E+00	2.33E-03	4.01E-03	6.40E-04	1.35E-03	potential residence	0.00	2027	0.00
564630_418387C	564630	4183870	3.27E-03	3.02E-03	2.68E-03	0.00E+00	2.34E-03	4.02E-03	6.41E-04	1.35E-03	potential residence	0.00	2027	0.00
564650_418387C	564650	4183870	3.35E-03	3.09E-03	2.74E-03	0.00E+00	2.35E-03	4.04E-03	6.44E-04	1.36E-03	potential residence	0.00	2027	0.00
564670_418387C	564670	4183870	3.44E-03	3.17E-03	2.81E-03	0.00E+00	2.38E-03	4.09E-03	6.53E-04	1.37E-03	potential residence	0.00	2027	0.00
564690_418387C	564690	4183870	3.52E-03	3.24E-03	2.87E-03	0.00E+00	2.48E-03	4.26E-03	6.79E-04	1.43E-03	potential residence	0.00	2027	0.00
564710_418387C	564710	4183870	3.54E-03	3.26E-03	2.89E-03	0.00E+00	2.49E-03	4.28E-03	6.83E-04	1.44E-03	potential residence	0.00	2027	0.00
564730_418387C	564730	4183870	3.54E-03	3.27E-03	2.90E-03	0.00E+00	2.50E-03	4.29E-03	6.85E-04	1.44E-03	potential residence	0.00	2027	0.00
564750_418387C	564750	4183870	3.69E-03	3.40E-03	3.01E-03	0.00E+00	2.50E-03	4.30E-03	6.86E-04	1.44E-03	potential residence	0.00	2027	0.00
564770_418387C	564770	4183870	3.69E-03	3.40E-03	3.01E-03	0.00E+00	2.49E-03	4.28E-03	6.83E-04	1.44E-03	potential residence	0.00	2027	0.00
564790_418387C	564790	4183870	3.70E-03	3.41E-03	3.02E-03	0.00E+00	2.47E-03	4.25E-03	6.78E-04	1.43E-03	potential residence	0.00	2027	0.00
564810_418387C	564810	4183870	3.74E-03	3.45E-03	3.06E-03	0.00E+00	2.45E-03	4.21E-03	6.73E-04	1.41E-03	potential residence	0.00	2027	0.00
564830_418387C	564830	4183870	3.77E-03	3.47E-03	3.08E-03	0.00E+00	2.42E-03	4.16E-03	6.63E-04	1.40E-03	potential residence	0.00	2027	0.00
564850_418387C	564850	4183870	3.79E-03	3.50E-03	3.10E-03	0.00E+00	2.38E-03	4.09E-03	6.53E-04	1.37E-03	potential residence	0.00	2027	0.00
564870_418387C	564870	4183870	3.82E-03	3.52E-03	3.12E-03	0.00E+00	2.35E-03	4.03E-03	6.44E-04	1.35E-03	potential residence	0.00	2027	0.00
564590_418389C	564590	4183890	2.82E-03	2.60E-03	2.31E-03	0.00E+00	2.10E-03	3.61E-03	5.77E-04	1.21E-03	potential residence	0.00	2027	0.00
564610_418389C	564610	4183890	2.88E-03	2.66E-03	2.36E-03	0.00E+00	2.10E-03	3.60E-03	5.75E-04	1.21E-03	potential residence	0.00	2027	0.00
564630_418389C	564630	4183890	2.95E-03	2.72E-03	2.41E-03	0.00E+00	2.10E-03	3.60E-03	5.75E-04	1.21E-03	potential residence	0.00	2027	0.00
564650_418389C	564650	4183890	3.04E-03	2.81E-03	2.49E-03	0.00E+00	2.19E-03	3.77E-03	6.01E-04	1.26E-03	potential residence	0.00	2027	0.00
564670_418389C	564670	4183890	3.09E-03	2.85E-03	2.53E-03	0.00E+00	2.19E-03	3.77E-03	6.02E-04	1.27E-03	potential residence	0.00	2027	0.00
564690_418389C	564690	4183890	3.14E-03	2.90E-03	2.57E-03	0.00E+00	2.21E-03	3.81E-03	6.08E-04	1.28E-03	potential residence	0.00	2027	0.00
564710_418389C	564710	4183890	3.16E-03	2.91E-03	2.58E-03	0.00E+00	2.23E-03	3.83E-03	6.11E-04	1.29E-03	potential residence	0.00	2027	0.00
564730_418389C	564730	4183890	3.15E-03	2.91E-03	2.58E-03	0.00E+00	2.24E-03	3.85E-03	6.14E-04	1.29E-03	potential residence	0.00	2027	0.00
564750_418389C	564750	4183890	3.27E-03	3.01E-03	2.67E-03	0.00E+00	2.24E-03	3.85E-03	6.15E-04	1.29E-03	potential residence	0.00	2027	0.00
564770_418389C	564770	4183890	3.27E-03	3.01E-03	2.67E-03	0.00E+00	2.24E-03	3.84E-03	6.14E-04	1.29E-03	potential residence	0.00	2027	0.00
564790_418389C	564790	4183890	3.29E-03	3.03E-03	2.69E-03	0.00E+00	2.23E-03	3.83E-03	6.12E-04	1.29E-03	potential residence	0.00	2027	0.00
564810_418389C	564810	4183890	3.32E-03	3.06E-03	2.71E-03	0.00E+00	2.22E-03	3.81E-03	6.08E-04	1.28E-03	potential residence	0.00	2027	0.00
564830_418389C	564830	4183890	3.35E-03	3.09E-03	2.74E-03	0.00E+00	2.19E-03	3.77E-03	6.01E-04	1.26E-03	potential residence	0.00	2027	0.00
564850_418389C	564850	4183890	3.37E-03	3.11E-03	2.76E-03	0.00E+00	2.16E-03	3.71E-03	5.93E-04	1.25E-03	potential residence	0.00	2027	0.00
564630_418391C	564630	4183910	2.68E-03	2.47E-03	2.19E-03	0.00E+00	1.90E-03	3.26E-03	5.20E-04	1.09E-03	potential residence	0.00	2027	0.00
564650_418391C	564650	4183910	2.76E-03	2.54E-03	2.26E-03	0.00E+00	1.98E-03	3.40E-03	5.42E-04	1.14E-03	potential residence	0.00	2027	0.00
564670_418391C	564670	4183910	2.79E-03	2.58E-03	2.28E-03	0.00E+00	1.98E-03	3.40E-03	5.42E-04	1.14E-03	potential residence	0.00	2027	0.00
564690_418391C	564690	4183910	2.82E-03	2.60E-03	2.31E-03	0.00E+00	1.99E-03	3.42E-03	5.46E-04	1.15E-03	potential residence	0.00	2027	0.00
564710_418391C	564710	4183910	2.83E-03	2.61E-03	2.31E-03	0.00E+00	2.01E-03	3.45E-03	5.50E-04	1.16E-03	potential residence	0.00	2027	0.00
564730_418391C	564730	4183910	2.82E-03	2.60E-03	2.31E-03	0.00E+00	2.02E-03	3.46E-03	5.53E-04	1.16E-03	potential residence	0.00	2027	0.00
564750_418391C	564750	4183910	2.92E-03	2.69E-03	2.39E-03	0.00E+00	2.02E-03	3.47E-03	5.54E-04	1.17E-03	potential residence	0.00	2027	0.00
564770_418391C	564770	4183910	2.93E-03	2.70E-03	2.39E-03	0.00E+00	2.02E-03	3.48E-03	5.55E-04	1.17E-03	potential residence	0.00	2027	0.00
564790_418391C	564790	4183910	2.94E-03	2.71E-03	2.40E-03	0.00E+00	2.02E-03	3.47E-03	5.55E-04	1.17E-03	potential residence	0.00	2027	0.00
564810_418391C	564810	4183910	2.96E-03	2.73E-03	2.42E-03	0.00E+00	2.01E-03	3.45E-03	5.51E-04	1.16E-03	potential residence	0.00	2027	0.00
564610_418391C	564610	4183910	2.62E-03	2.41E-03	2.14E-03	0.00E+00	1.89E-03	3.25E-03	5.19E-04	1.09E-03	potential residence	0.00	2027	0.00
564590_418391C	564590	4183910	2.56E-03	2.36E-03	2.09E-03	0.00E+00	1.90E-03	3.27E-03	5.21E-04	1.10E-03	potential residence	0.00	2027	0.00
564570_418391C	564570	4183910	2.51E-03	2.31E-03	2.05E-03	0.00E+00	1.90E-03	3.27E-03	5.22E-04	1.10E-03	potential residence	0.00	2027	0.00
564550_418391C	564550	4183910	2.50E-03	2.30E-03	2.04E-03	0.00E+00	2.00E-03	3.44E-03	5.49E-04	1.15E-03	potential residence	0.00	2027	0.00
564530_418391C	564530	4183910	2.44E-03	2.25E-03	1.99E-03	0.00E+00	1.91E-03	3.29E-03	5.25E-04	1.10E-03	potential residence	0.00	2027	0.00
564510_418391C	564510	4183910	2.37E-03	2.19E-03	1.94E-03	0.00E+00	1.87E-03	3.21E-03	5.13E-04	1.08E-03	potential residence	0.00	2027	0.00
564490_418391C	564490	4183910	2.30E-03	2.12E-03	1.88E-03	0.00E+00	1.83E-03	3.15E-03	5.03E-04	1.06E-03	potential residence	0.00	2027	0.00
564470_418391C	564470	4183910	2.23E-03	2.05E-03	1.82E-03	0.00E+00	1.79E-03	3.08E-03	4.92E-04	1.03E-03	School	0.00	2027	0.00
564450_418391C	564450	4183910	2.14E-03	1.98E-03	1.75E-03	0.00E+00	1.76E-03	3.03E-03	4.83E-04	1.02E-03	School	0.00	2027	0.00
564430_418391C	564430	4183910	2.05E-03	1.89E-03	1.67E-03	0.00E+00	1.73E-03	2.96E-03	4.73E-04	9.95E-04	potential residence	0.00	2027	0.00
564410_418391C	564410	4183910	1.96E-03	1.80E-03	1.60E-03	0.00E+00	1.70E-03	2.93E-03	4.67E-04	9.82E-04	potential residence	0.00	2027	0.00
564390_418391C	564390	4183910	1.86E-03	1.72E-03	1.52E-03	0.00E+00	1.68E-03	2.88E-03	4.61E-04	9.69E-04	potential residence	0.00	2027	0.00
564370_418391C	564370	4183910	1.77E-03	1.63E-03	1.45E-03	0.00E+00	1.65E-03	2.84E-03	4.53E-04	9.53E-04	potential residence	0.00	2027	0.00
564350_418391C	564350	4183910	1.68E-03	1.55E-03	1.38E-03	0.00E+00	1.62E-03	2.79E-03	4.46E-04	9.37E-04	potential residence	0.00	2027	0.00
564570_418389C	564570	4183890	2.77E-03	2.55E-03	2.26E-03	0.00E+00	2.11E-03	3.63E-03	5.80E-04	1.22E-03	potential residence	0.00	2027	0.00
564550_418389C	564550	4183890	2.71E-03	2.50E-03	2.22E-03	0.00E+00	2.11E-03	3.62E-03	5.78E-04	1.22E-03	potential residence	0.00	2027	0.00
564530_418389C	564530	4183890	2.65E-03	2.45E-03	2.17E-03	0.00E+00	2.09E-03	3.60E-03	5.74E-04	1.21E-03	potential residence	0.00	2027	0.00
564510_418389C	564510	4183890	2.58E-03	2.38E-03	2.11E-03	0.00E+00	2.06E-03	3.53E-03	5.64E-04	1.19E-03	School	0.00	2027	0.00
564490_418389C	564490	4183890	2.48E-03	2.29E-03	2.03E-03	0.00E+00	2.00E-03	3.44E-03	5.50E-04	1.16E-03	School	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) — Unmitigated HI Risk

Lookup	X (UTM)	Y (UTM	Unmitigated								Receptor Type	C_{DPM}/REL		
			2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564470_418389(	564470	4183890	2.39E-03	2.20E-03	1.95E-03	0.00E+00	1.97E-03	3.38E-03	5.39E-04	1.13E-03	School	0.00	2027	0.00
564450_418389(	564450	4183890	2.29E-03	2.11E-03	1.87E-03	0.00E+00	1.94E-03	3.33E-03	5.31E-04	1.12E-03	School	0.00	2027	0.00
564430_418389(	564430	4183890	2.17E-03	2.00E-03	1.78E-03	0.00E+00	1.89E-03	3.25E-03	5.19E-04	1.09E-03	potential residence	0.00	2027	0.00
564410_418389(	564410	4183890	2.06E-03	1.90E-03	1.69E-03	0.00E+00	1.87E-03	3.21E-03	5.12E-04	1.08E-03	potential residence	0.00	2027	0.00
564390_418389(	564390	4183890	1.95E-03	1.80E-03	1.60E-03	0.00E+00	1.83E-03	3.15E-03	5.03E-04	1.06E-03	potential residence	0.00	2027	0.00
564370_418389(	564370	4183890	1.85E-03	1.71E-03	1.52E-03	0.00E+00	1.81E-03	3.10E-03	4.96E-04	1.04E-03	potential residence	0.00	2027	0.00
564350_418389(	564350	4183890	1.76E-03	1.62E-03	1.44E-03	0.00E+00	1.77E-03	3.04E-03	4.85E-04	1.02E-03	potential residence	0.00	2027	0.00
564530_418387(	564530	4183870	2.89E-03	2.67E-03	2.36E-03	0.00E+00	2.30E-03	3.96E-03	6.32E-04	1.33E-03	School	0.00	2027	0.00
564510_418387(	564510	4183870	2.79E-03	2.57E-03	2.28E-03	0.00E+00	2.26E-03	3.88E-03	6.19E-04	1.30E-03	School	0.00	2027	0.00
564490_418387(	564490	4183870	2.68E-03	2.47E-03	2.19E-03	0.00E+00	2.21E-03	3.80E-03	6.07E-04	1.28E-03	School	0.00	2027	0.00
564470_418387(	564470	4183870	2.56E-03	2.36E-03	2.10E-03	0.00E+00	2.17E-03	3.73E-03	5.96E-04	1.25E-03	School	0.00	2027	0.00
564450_418387(	564450	4183870	2.44E-03	2.25E-03	1.99E-03	0.00E+00	2.14E-03	3.67E-03	5.86E-04	1.23E-03	School	0.00	2027	0.00
564430_418387(	564430	4183870	2.31E-03	2.13E-03	1.88E-03	0.00E+00	2.09E-03	3.60E-03	5.75E-04	1.21E-03	School	0.00	2027	0.00
564410_418387(	564410	4183870	2.18E-03	2.01E-03	1.78E-03	0.00E+00	2.06E-03	3.54E-03	5.65E-04	1.19E-03	potential residence	0.00	2027	0.00
564390_418387(	564390	4183870	2.06E-03	1.90E-03	1.68E-03	0.00E+00	2.02E-03	3.48E-03	5.55E-04	1.17E-03	potential residence	0.00	2027	0.00
564370_418387(	564370	4183870	1.93E-03	1.78E-03	1.58E-03	0.00E+00	1.97E-03	3.39E-03	5.41E-04	1.14E-03	potential residence	0.00	2027	0.00
564350_418387(	564350	4183870	1.82E-03	1.68E-03	1.49E-03	0.00E+00	1.91E-03	3.29E-03	5.25E-04	1.10E-03	Daycare	0.00	2027	0.00
564330_418387(	564330	4183870	1.71E-03	1.58E-03	1.40E-03	0.00E+00	1.84E-03	3.16E-03	5.05E-04	1.06E-03	Daycare	0.00	2027	0.00
564490_418385(	564490	4183850	2.90E-03	2.67E-03	2.37E-03	0.00E+00	2.47E-03	4.24E-03	6.77E-04	1.42E-03	School	0.00	2027	0.00
564470_418385(	564470	4183850	2.74E-03	2.53E-03	2.24E-03	0.00E+00	2.41E-03	4.14E-03	6.60E-04	1.39E-03	School	0.00	2027	0.00
564450_418385(	564450	4183850	2.59E-03	2.39E-03	2.12E-03	0.00E+00	2.37E-03	4.07E-03	6.49E-04	1.37E-03	School	0.00	2027	0.00
564430_418385(	564430	4183850	2.44E-03	2.25E-03	1.99E-03	0.00E+00	2.33E-03	4.00E-03	6.38E-04	1.34E-03	School	0.00	2027	0.00
564410_418385(	564410	4183850	2.28E-03	2.11E-03	1.87E-03	0.00E+00	2.27E-03	3.91E-03	6.24E-04	1.31E-03	potential residence	0.00	2027	0.00
564390_418385(	564390	4183850	2.14E-03	1.97E-03	1.75E-03	0.00E+00	2.22E-03	3.81E-03	6.08E-04	1.28E-03	potential residence	0.00	2027	0.00
564370_418385(	564370	4183850	2.00E-03	1.84E-03	1.64E-03	0.00E+00	2.14E-03	3.68E-03	5.88E-04	1.24E-03	potential residence	0.00	2027	0.00
564350_418385(	564350	4183850	1.87E-03	1.72E-03	1.53E-03	0.00E+00	2.06E-03	3.54E-03	5.65E-04	1.19E-03	Daycare	0.00	2027	0.00
564330_418385(	564330	4183850	1.75E-03	1.62E-03	1.43E-03	0.00E+00	1.97E-03	3.39E-03	5.41E-04	1.14E-03	Daycare	0.00	2027	0.00
564310_418385(	564310	4183850	1.66E-03	1.53E-03	1.35E-03	0.00E+00	1.89E-03	3.25E-03	5.18E-04	1.09E-03	Daycare	0.00	2027	0.00
564450_418383(	564450	4183830	2.74E-03	2.53E-03	2.24E-03	0.00E+00	2.64E-03	4.54E-03	7.24E-04	1.52E-03	potential residence	0.00	2027	0.00
564430_418383(	564430	4183830	2.56E-03	2.36E-03	2.09E-03	0.00E+00	2.58E-03	4.44E-03	7.09E-04	1.49E-03	potential residence	0.00	2027	0.00
564410_418383(	564410	4183830	2.38E-03	2.20E-03	1.95E-03	0.00E+00	2.51E-03	4.32E-03	6.89E-04	1.45E-03	potential residence	0.00	2027	0.00
564390_418383(	564390	4183830	2.22E-03	2.04E-03	1.81E-03	0.00E+00	2.42E-03	4.17E-03	6.65E-04	1.40E-03	potential residence	0.00	2027	0.00
564370_418383(	564370	4183830	2.06E-03	1.90E-03	1.68E-03	0.00E+00	2.33E-03	4.00E-03	6.38E-04	1.34E-03	potential residence	0.00	2027	0.00
564350_418383(	564350	4183830	1.93E-03	1.78E-03	1.57E-03	0.00E+00	2.22E-03	3.82E-03	6.10E-04	1.28E-03	Daycare	0.00	2027	0.00
564330_418383(	564330	4183830	1.80E-03	1.66E-03	1.47E-03	0.00E+00	2.11E-03	3.62E-03	5.78E-04	1.22E-03	Daycare	0.00	2027	0.00
564310_418383(	564310	4183830	1.70E-03	1.56E-03	1.39E-03	0.00E+00	2.01E-03	3.45E-03	5.52E-04	1.16E-03	Daycare	0.00	2027	0.00
564430_418381(	564430	4183810	2.68E-03	2.47E-03	2.19E-03	0.00E+00	2.88E-03	4.95E-03	7.90E-04	1.66E-03	potential residence	0.00	2027	0.00
564410_418381(	564410	4183810	2.49E-03	2.29E-03	2.03E-03	0.00E+00	2.79E-03	4.80E-03	7.66E-04	1.61E-03	potential residence	0.00	2027	0.00
564390_418381(	564390	4183810	2.29E-03	2.11E-03	1.87E-03	0.00E+00	2.66E-03	4.57E-03	7.29E-04	1.53E-03	potential residence	0.00	2027	0.00
564370_418381(	564370	4183810	2.13E-03	1.97E-03	1.74E-03	0.00E+00	2.54E-03	4.36E-03	6.97E-04	1.46E-03	potential residence	0.00	2027	0.00
564350_418381(	564350	4183810	1.99E-03	1.83E-03	1.62E-03	0.00E+00	2.41E-03	4.14E-03	6.60E-04	1.39E-03	potential residence	0.00	2027	0.00
564330_418381(	564330	4183810	1.86E-03	1.71E-03	1.52E-03	0.00E+00	2.27E-03	3.91E-03	6.24E-04	1.31E-03	Daycare	0.00	2027	0.00
564390_418379(	564390	4183790	2.38E-03	2.20E-03	1.95E-03	0.00E+00	2.94E-03	5.05E-03	8.07E-04	1.70E-03	potential residence	0.01	2027	0.00
564370_418379(	564370	4183790	2.21E-03	2.03E-03	1.80E-03	0.00E+00	2.77E-03	4.77E-03	7.61E-04	1.60E-03	potential residence	0.00	2027	0.00
565230_418339(	565230	4183390	1.17E-02	1.08E-02	9.55E-03	0.00E+00	5.94E-03	1.02E-02	1.63E-03	3.43E-03	Daycare	0.01	2022	0.00
565250_418339(	565250	4183390	1.09E-02	1.01E-02	8.93E-03	0.00E+00	5.63E-03	9.67E-03	1.54E-03	3.25E-03	Daycare	0.01	2022	0.00
565230_418337(	565230	4183370	1.15E-02	1.06E-02	9.37E-03	0.00E+00	5.87E-03	1.01E-02	1.61E-03	3.39E-03	Daycare	0.01	2022	0.00
565250_418337(	565250	4183370	1.07E-02	9.91E-03	8.78E-03	0.00E+00	5.56E-03	9.56E-03	1.53E-03	3.21E-03	Daycare	0.01	2022	0.00
565230_418335(	565230	4183350	1.12E-02	1.04E-02	9.19E-03	0.00E+00	5.82E-03	1.00E-02	1.60E-03	3.36E-03	Daycare	0.01	2022	0.00
565250_418335(	565250	4183350	1.06E-02	9.75E-03	8.65E-03	0.00E+00	5.52E-03	9.49E-03	1.52E-03	3.18E-03	Daycare	0.01	2022	0.00

All Receptors - Construction Annual Average $PM_{2.5}$ Concentration

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Unmitigated $PM_{2.5}$ (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	91	215	0	306	4.66E-02	1.36E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	365	0	365	5.12E-02	5.30E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	150	78	228	2.85E-02	3.20E-04	4.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	507	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	0	0	361	361	4.26E-02	4.90E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	0	365	365	7.35E-02	1.08E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	0	366	366	1.18E-02	9.00E-05	8.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	3.11E-03	4.00E-05	0.00E+00

				Total Unmitigated $PM_{2.5}$ (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.60E-03	2.33E-06	1.47E-06
2023	1	1/1/2023	12/31/2023	1.47E-03	8.29E-07	5.23E-07
2024	1	1/1/2024	8/15/2024	1.31E-03	8.21E-07	5.18E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.24E-03	7.57E-07	4.77E-07
2027	2	1/1/2027	12/31/2027	2.11E-03	1.52E-06	9.57E-07
2028	2	1/1/2028	12/31/2028	3.38E-04	3.68E-07	2.32E-07
2029	2	1/1/2029	2/13/2029	7.42E-04	3.96E-07	2.50E-07

MAX	PM2.5	UTM X	UTM Y
Unmitigated	0.36	564650	4183490
receptor type	potential residence		

MAX	PM2.5	UTM X	UTM Y
Unmitigated	0.20	564710	4183530
receptor type	Building B		

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

			Unmitigated								Receptor Type	$PM_{2.5}$ Concentration	
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564550_4183170	564550	4183170	2.26E-03	2.08E-03	1.85E-03	0.00E+00	2.44E-03	4.16E-03	6.66E-04	1.46E-03	potential residence	0.00	2027
564570_4183170	564570	4183170	2.33E-03	2.14E-03	1.91E-03	0.00E+00	2.55E-03	4.35E-03	6.96E-04	1.52E-03	potential residence	0.00	2027
564590_4183170	564590	4183170	2.39E-03	2.20E-03	1.96E-03	0.00E+00	2.65E-03	4.53E-03	7.25E-04	1.59E-03	potential residence	0.00	2027
564610_4183170	564610	4183170	2.46E-03	2.26E-03	2.01E-03	0.00E+00	2.76E-03	4.72E-03	7.55E-04	1.65E-03	potential residence	0.00	2027
564630_4183170	564630	4183170	2.54E-03	2.33E-03	2.08E-03	0.00E+00	2.90E-03	4.95E-03	7.92E-04	1.74E-03	potential residence	0.00	2027
564650_4183170	564650	4183170	2.63E-03	2.42E-03	2.15E-03	0.00E+00	3.05E-03	5.20E-03	8.33E-04	1.83E-03	potential residence	0.01	2027
564670_4183170	564670	4183170	2.72E-03	2.51E-03	2.23E-03	0.00E+00	3.21E-03	5.48E-03	8.77E-04	1.92E-03	potential residence	0.01	2027
564690_4183170	564690	4183170	2.83E-03	2.60E-03	2.32E-03	0.00E+00	3.39E-03	5.78E-03	9.26E-04	2.03E-03	potential residence	0.01	2027
564510_4183190	564510	4183190	2.31E-03	2.12E-03	1.89E-03	0.00E+00	2.48E-03	4.23E-03	6.77E-04	1.48E-03	potential residence	0.00	2027
564530_4183190	564530	4183190	2.38E-03	2.19E-03	1.95E-03	0.00E+00	2.57E-03	4.39E-03	7.03E-04	1.54E-03	potential residence	0.00	2027
564550_4183190	564550	4183190	2.45E-03	2.25E-03	2.01E-03	0.00E+00	2.68E-03	4.57E-03	7.32E-04	1.61E-03	potential residence	0.00	2027
564570_4183190	564570	4183190	2.52E-03	2.32E-03	2.07E-03	0.00E+00	2.80E-03	4.78E-03	7.65E-04	1.68E-03	potential residence	0.00	2027
564590_4183190	564590	4183190	2.60E-03	2.39E-03	2.13E-03	0.00E+00	2.93E-03	5.00E-03	8.00E-04	1.75E-03	potential residence	0.00	2027
564610_4183190	564610	4183190	2.68E-03	2.46E-03	2.19E-03	0.00E+00	3.07E-03	5.24E-03	8.38E-04	1.84E-03	potential residence	0.01	2027
564630_4183190	564630	4183190	2.76E-03	2.54E-03	2.26E-03	0.00E+00	3.22E-03	5.50E-03	8.80E-04	1.93E-03	potential residence	0.01	2027
564650_4183190	564650	4183190	2.86E-03	2.63E-03	2.35E-03	0.00E+00	3.40E-03	5.81E-03	9.29E-04	2.04E-03	potential residence	0.01	2027
564670_4183190	564670	4183190	2.97E-03	2.73E-03	2.43E-03	0.00E+00	3.58E-03	6.12E-03	9.80E-04	2.15E-03	potential residence	0.01	2027
564690_4183190	564690	4183190	3.08E-03	2.84E-03	2.53E-03	0.00E+00	3.79E-03	6.46E-03	1.03E-03	2.27E-03	potential residence	0.01	2027
564710_4183190	564710	4183190	3.22E-03	2.96E-03	2.64E-03	0.00E+00	4.02E-03	6.86E-03	1.10E-03	2.41E-03	potential residence	0.01	2027
564730_4183190	564730	4183190	3.35E-03	3.08E-03	2.75E-03	0.00E+00	4.24E-03	7.24E-03	1.16E-03	2.54E-03	potential residence	0.01	2027
564470_4183210	564470	4183210	2.33E-03	2.14E-03	1.91E-03	0.00E+00	2.54E-03	4.33E-03	6.94E-04	1.52E-03	potential residence	0.00	2027
564490_4183210	564490	4183210	2.41E-03	2.22E-03	1.98E-03	0.00E+00	2.63E-03	4.49E-03	7.19E-04	1.58E-03	potential residence	0.00	2027
564510_4183210	564510	4183210	2.50E-03	2.30E-03	2.05E-03	0.00E+00	2.73E-03	4.66E-03	7.46E-04	1.63E-03	potential residence	0.00	2027
564530_4183210	564530	4183210	2.58E-03	2.37E-03	2.11E-03	0.00E+00	2.84E-03	4.85E-03	7.76E-04	1.70E-03	potential residence	0.00	2027
564550_4183210	564550	4183210	2.66E-03	2.45E-03	2.18E-03	0.00E+00	2.96E-03	5.06E-03	8.10E-04	1.77E-03	potential residence	0.01	2027
564570_4183210	564570	4183210	2.74E-03	2.52E-03	2.25E-03	0.00E+00	3.09E-03	5.28E-03	8.46E-04	1.85E-03	potential residence	0.01	2027
564590_4183210	564590	4183210	2.83E-03	2.61E-03	2.32E-03	0.00E+00	3.25E-03	5.55E-03	8.89E-04	1.95E-03	potential residence	0.01	2027
564610_4183210	564610	4183210	2.92E-03	2.69E-03	2.40E-03	0.00E+00	3.42E-03	5.84E-03	9.35E-04	2.05E-03	potential residence	0.01	2027
564630_4183210	564630	4183210	3.02E-03	2.78E-03	2.47E-03	0.00E+00	3.60E-03	6.15E-03	9.84E-04	2.16E-03	potential residence	0.01	2027
564650_4183210	564650	4183210	3.13E-03	2.88E-03	2.57E-03	0.00E+00	3.81E-03	6.51E-03	1.04E-03	2.28E-03	potential residence	0.01	2027
564670_4183210	564670	4183210	3.25E-03	2.99E-03	2.66E-03	0.00E+00	4.03E-03	6.88E-03	1.10E-03	2.41E-03	potential residence	0.01	2027
564690_4183210	564690	4183210	3.39E-03	3.12E-03	2.78E-03	0.00E+00	4.29E-03	7.32E-03	1.17E-03	2.57E-03	potential residence	0.01	2027
564430_4183230	564430	4183230	2.32E-03	2.13E-03	1.90E-03	0.00E+00	2.61E-03	4.46E-03	7.14E-04	1.56E-03	potential residence	0.00	2027
564450_4183230	564450	4183230	2.41E-03	2.22E-03	1.98E-03	0.00E+00	2.71E-03	4.62E-03	7.40E-04	1.62E-03	potential residence	0.00	2027
564470_4183230	564470	4183230	2.51E-03	2.31E-03	2.06E-03	0.00E+00	2.81E-03	4.79E-03	7.67E-04	1.68E-03	potential residence	0.00	2027
564490_4183230	564490	4183230	2.61E-03	2.40E-03	2.14E-03	0.00E+00	2.91E-03	4.97E-03	7.95E-04	1.74E-03	potential residence	0.00	2027
564510_4183230	564510	4183230	2.71E-03	2.49E-03	2.22E-03	0.00E+00	3.03E-03	5.17E-03	8.27E-04	1.81E-03	potential residence	0.01	2027
564530_4183230	564530	4183230	2.81E-03	2.58E-03	2.30E-03	0.00E+00	3.15E-03	5.38E-03	8.61E-04	1.89E-03	potential residence	0.01	2027
564550_4183230	564550	4183230	2.91E-03	2.67E-03	2.38E-03	0.00E+00	3.30E-03	5.63E-03	9.01E-04	1.98E-03	potential residence	0.01	2027
564570_4183230	564570	4183230	3.00E-03	2.76E-03	2.46E-03	0.00E+00	3.46E-03	5.90E-03	9.45E-04	2.07E-03	potential residence	0.01	2027
564590_4183230	564590	4183230	3.10E-03	2.86E-03	2.54E-03	0.00E+00	3.64E-03	6.21E-03	9.94E-04	2.18E-03	potential residence	0.01	2027
564610_4183230	564610	4183230	3.21E-03	2.95E-03	2.63E-03	0.00E+00	3.84E-03	6.55E-03	1.05E-03	2.30E-03	potential residence	0.01	2027
564630_4183230	564630	4183230	3.32E-03	3.05E-03	2.72E-03	0.00E+00	4.06E-03	6.93E-03	1.11E-03	2.43E-03	potential residence	0.01	2027
564650_4183230	564650	4183230	3.45E-03	3.17E-03	2.82E-03	0.00E+00	4.31E-03	7.36E-03	1.18E-03	2.58E-03	potential residence	0.01	2027
564670_4183230	564670	4183230	3.59E-03	3.30E-03	2.94E-03	0.00E+00	4.59E-03	7.84E-03	1.25E-03	2.75E-03	potential residence	0.01	2027
564390_4183250	564390	4183250	2.26E-03	2.08E-03	1.85E-03	0.00E+00	2.66E-03	4.53E-03	7.26E-04	1.59E-03	potential residence	0.00	2027
564410_4183250	564410	4183250	2.37E-03	2.18E-03	1.94E-03	0.00E+00	2.77E-03	4.74E-03	7.58E-04	1.66E-03	potential residence	0.00	2027
564430_4183250	564430	4183250	2.48E-03	2.28E-03	2.03E-03	0.00E+00	2.89E-03	4.94E-03	7.90E-04	1.73E-03	potential residence	0.00	2027
564450_4183250	564450	4183250	2.60E-03	2.39E-03	2.13E-03	0.00E+00	3.00E-03	5.13E-03	8.21E-04	1.80E-03	potential residence	0.01	2027
564470_4183250	564470	4183250	2.71E-03	2.50E-03	2.22E-03	0.00E+00	3.12E-03	5.33E-03	8.53E-04	1.87E-03	potential residence	0.01	2027
564490_4183250	564490	4183250	2.83E-03	2.60E-03	2.32E-03	0.00E+00	3.24E-03	5.54E-03	8.86E-04	1.94E-03	potential residence	0.01	2027
564510_4183250	564510	4183250	2.95E-03	2.71E-03	2.42E-03	0.00E+00	3.38E-03	5.76E-03	9.23E-04	2.02E-03	potential residence	0.01	2027
564530_4183250	564530	4183250	3.07E-03	2.82E-03	2.51E-03	0.00E+00	3.53E-03	6.02E-03	9.64E-04	2.11E-03	potential residence	0.01	2027
564550_4183250	564550	4183250	3.19E-03	2.93E-03	2.61E-03	0.00E+00	3.69E-03	6.31E-03	1.01E-03	2.21E-03	potential residence	0.01	2027
564570_4183250	564570	4183250	3.30E-03	3.04E-03	2.70E-03	0.00E+00	3.88E-03	6.63E-03	1.06E-03	2.33E-03	potential residence	0.01	2027
564590_4183250	564590	4183250	3.42E-03	3.15E-03	2.80E-03	0.00E+00	4.11E-03	7.01E-03	1.12E-03	2.46E-03	potential residence	0.01	2027
564610_4183250	564610	4183250	3.55E-03	3.26E-03	2.91E-03	0.00E+00	4.36E-03	7.43E-03	1.19E-03	2.61E-03	potential residence	0.01	2027
564630_4183250	564630	4183250	3.68E-03	3.38E-03	3.01E-03	0.00E+00	4.63E-03	7.91E-03	1.27E-03	2.77E-03	potential residence	0.01	2027
564650_4183250	564650	4183250	3.81E-03	3.51E-03	3.13E-03	0.00E+00	4.93E-03	8.41E-03	1.35E-03	2.95E-03	potential residence	0.01	2027
564350_4183270	564350	4183270	2.16E-03	1.99E-03	1.77E-03	0.00E+00	2.64E-03	4.50E-03	7.20E-04	1.58E-03	potential residence	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated								Receptor Type	$PM_{2.5}$ Concentration	
			2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564370_4183270	564370	4183270	2.28E-03	2.09E-03	1.87E-03	0.00E+00	2.78E-03	4.75E-03	7.60E-04	1.67E-03	potential residence	0.00	2027
564390_4183270	564390	4183270	2.40E-03	2.21E-03	1.97E-03	0.00E+00	2.93E-03	5.00E-03	8.00E-04	1.75E-03	potential residence	0.00	2027
564410_4183270	564410	4183270	2.52E-03	2.32E-03	2.07E-03	0.00E+00	3.07E-03	5.24E-03	8.38E-04	1.84E-03	potential residence	0.01	2027
564430_4183270	564430	4183270	2.66E-03	2.44E-03	2.18E-03	0.00E+00	3.21E-03	5.48E-03	8.78E-04	1.92E-03	potential residence	0.01	2027
564450_4183270	564450	4183270	2.79E-03	2.57E-03	2.29E-03	0.00E+00	3.35E-03	5.72E-03	9.16E-04	2.01E-03	potential residence	0.01	2027
564470_4183270	564470	4183270	2.94E-03	2.70E-03	2.41E-03	0.00E+00	3.50E-03	5.98E-03	9.57E-04	2.10E-03	potential residence	0.01	2027
564490_4183270	564490	4183270	3.08E-03	2.83E-03	2.53E-03	0.00E+00	3.65E-03	6.24E-03	9.98E-04	2.19E-03	potential residence	0.01	2027
564510_4183270	564510	4183270	3.23E-03	2.97E-03	2.65E-03	0.00E+00	3.82E-03	6.52E-03	1.04E-03	2.29E-03	potential residence	0.01	2027
564530_4183270	564530	4183270	3.36E-03	3.09E-03	2.75E-03	0.00E+00	3.97E-03	6.78E-03	1.09E-03	2.38E-03	potential residence	0.01	2027
564550_4183270	564550	4183270	3.51E-03	3.22E-03	2.87E-03	0.00E+00	4.18E-03	7.13E-03	1.14E-03	2.50E-03	potential residence	0.01	2027
564570_4183270	564570	4183270	3.65E-03	3.36E-03	2.99E-03	0.00E+00	4.41E-03	7.54E-03	1.21E-03	2.64E-03	potential residence	0.01	2027
564590_4183270	564590	4183270	3.80E-03	3.50E-03	3.12E-03	0.00E+00	4.70E-03	8.02E-03	1.28E-03	2.81E-03	potential residence	0.01	2027
564610_4183270	564610	4183270	3.94E-03	3.63E-03	3.23E-03	0.00E+00	4.99E-03	8.51E-03	1.36E-03	2.99E-03	potential residence	0.01	2027
564310_4183290	564310	4183290	2.03E-03	1.87E-03	1.66E-03	0.00E+00	2.54E-03	4.33E-03	6.94E-04	1.52E-03	potential residence	0.00	2027
564330_4183290	564330	4183290	2.15E-03	1.97E-03	1.76E-03	0.00E+00	2.70E-03	4.61E-03	7.38E-04	1.62E-03	potential residence	0.00	2027
564350_4183290	564350	4183290	2.27E-03	2.09E-03	1.86E-03	0.00E+00	2.87E-03	4.90E-03	7.85E-04	1.72E-03	potential residence	0.00	2027
564370_4183290	564370	4183290	2.40E-03	2.21E-03	1.97E-03	0.00E+00	3.05E-03	5.20E-03	8.33E-04	1.83E-03	potential residence	0.01	2027
564390_4183290	564390	4183290	2.54E-03	2.33E-03	2.08E-03	0.00E+00	3.22E-03	5.50E-03	8.80E-04	1.93E-03	potential residence	0.01	2027
564410_4183290	564410	4183290	2.69E-03	2.47E-03	2.20E-03	0.00E+00	3.40E-03	5.81E-03	9.30E-04	2.04E-03	potential residence	0.01	2027
564430_4183290	564430	4183290	2.84E-03	2.61E-03	2.33E-03	0.00E+00	3.58E-03	6.12E-03	9.79E-04	2.15E-03	potential residence	0.01	2027
564450_4183290	564450	4183290	3.01E-03	2.77E-03	2.47E-03	0.00E+00	3.78E-03	6.45E-03	1.03E-03	2.26E-03	potential residence	0.01	2027
564470_4183290	564470	4183290	3.18E-03	2.92E-03	2.60E-03	0.00E+00	3.95E-03	6.75E-03	1.08E-03	2.37E-03	potential residence	0.01	2027
564490_4183290	564490	4183290	3.35E-03	3.09E-03	2.75E-03	0.00E+00	4.15E-03	7.08E-03	1.13E-03	2.48E-03	potential residence	0.01	2027
564510_4183290	564510	4183290	3.54E-03	3.25E-03	2.90E-03	0.00E+00	4.35E-03	7.42E-03	1.19E-03	2.60E-03	potential residence	0.01	2027
564530_4183290	564530	4183290	3.70E-03	3.40E-03	3.03E-03	0.00E+00	4.53E-03	7.73E-03	1.24E-03	2.71E-03	potential residence	0.01	2027
564550_4183290	564550	4183290	3.87E-03	3.56E-03	3.17E-03	0.00E+00	4.77E-03	8.14E-03	1.30E-03	2.85E-03	potential residence	0.01	2027
564570_4183290	564570	4183290	4.05E-03	3.73E-03	3.32E-03	0.00E+00	5.06E-03	8.63E-03	1.38E-03	3.03E-03	potential residence	0.01	2027
564290_4183310	564290	4183310	1.99E-03	1.83E-03	1.63E-03	0.00E+00	2.53E-03	4.33E-03	6.93E-04	1.52E-03	potential residence	0.00	2027
564310_4183310	564310	4183310	2.11E-03	1.94E-03	1.73E-03	0.00E+00	2.72E-03	4.64E-03	7.43E-04	1.63E-03	potential residence	0.00	2027
564330_4183310	564330	4183310	2.24E-03	2.06E-03	1.83E-03	0.00E+00	2.91E-03	4.98E-03	7.96E-04	1.75E-03	potential residence	0.00	2027
564350_4183310	564350	4183310	2.37E-03	2.18E-03	1.94E-03	0.00E+00	3.12E-03	5.32E-03	8.52E-04	1.87E-03	potential residence	0.01	2027
564370_4183310	564370	4183310	2.52E-03	2.32E-03	2.07E-03	0.00E+00	3.34E-03	5.69E-03	9.12E-04	2.00E-03	potential residence	0.01	2027
564390_4183310	564390	4183310	2.68E-03	2.47E-03	2.20E-03	0.00E+00	3.56E-03	6.08E-03	9.73E-04	2.13E-03	potential residence	0.01	2027
564410_4183310	564410	4183310	2.85E-03	2.62E-03	2.34E-03	0.00E+00	3.79E-03	6.48E-03	1.04E-03	2.27E-03	potential residence	0.01	2027
564430_4183310	564430	4183310	3.03E-03	2.79E-03	2.48E-03	0.00E+00	4.02E-03	6.87E-03	1.10E-03	2.41E-03	potential residence	0.01	2027
564450_4183310	564450	4183310	3.23E-03	2.97E-03	2.65E-03	0.00E+00	4.27E-03	7.29E-03	1.17E-03	2.56E-03	potential residence	0.01	2027
564470_4183310	564470	4183310	3.44E-03	3.16E-03	2.82E-03	0.00E+00	4.51E-03	7.70E-03	1.23E-03	2.70E-03	potential residence	0.01	2027
564490_4183310	564490	4183310	3.65E-03	3.35E-03	2.99E-03	0.00E+00	4.74E-03	8.08E-03	1.29E-03	2.84E-03	potential residence	0.01	2027
564510_4183310	564510	4183310	3.86E-03	3.55E-03	3.16E-03	0.00E+00	4.97E-03	8.49E-03	1.36E-03	2.98E-03	potential residence	0.01	2027
564530_4183310	564530	4183310	4.07E-03	3.74E-03	3.34E-03	0.00E+00	5.21E-03	8.89E-03	1.42E-03	3.12E-03	potential residence	0.01	2027
564290_4183330	564290	4183330	2.05E-03	1.88E-03	1.68E-03	0.00E+00	2.69E-03	4.59E-03	7.35E-04	1.61E-03	potential residence	0.00	2027
564310_4183330	564310	4183330	2.18E-03	2.00E-03	1.79E-03	0.00E+00	2.90E-03	4.95E-03	7.93E-04	1.74E-03	potential residence	0.00	2027
564330_4183330	564330	4183330	2.32E-03	2.13E-03	1.90E-03	0.00E+00	3.13E-03	5.34E-03	8.56E-04	1.88E-03	potential residence	0.01	2027
564350_4183330	564350	4183330	2.48E-03	2.28E-03	2.03E-03	0.00E+00	3.38E-03	5.78E-03	9.25E-04	2.03E-03	potential residence	0.01	2027
564370_4183330	564370	4183330	2.65E-03	2.43E-03	2.17E-03	0.00E+00	3.65E-03	6.24E-03	9.99E-04	2.19E-03	potential residence	0.01	2027
564390_4183330	564390	4183330	2.83E-03	2.60E-03	2.31E-03	0.00E+00	3.94E-03	6.72E-03	1.08E-03	2.36E-03	potential residence	0.01	2027
564410_4183330	564410	4183330	3.02E-03	2.78E-03	2.47E-03	0.00E+00	4.23E-03	7.23E-03	1.16E-03	2.54E-03	potential residence	0.01	2027
564430_4183330	564430	4183330	3.23E-03	2.97E-03	2.64E-03	0.00E+00	4.53E-03	7.73E-03	1.24E-03	2.71E-03	potential residence	0.01	2027
564450_4183330	564450	4183330	3.46E-03	3.18E-03	2.83E-03	0.00E+00	4.85E-03	8.28E-03	1.33E-03	2.90E-03	potential residence	0.01	2027
564470_4183330	564470	4183330	3.71E-03	3.41E-03	3.04E-03	0.00E+00	5.17E-03	8.83E-03	1.41E-03	3.10E-03	potential residence	0.01	2027
564490_4183330	564490	4183330	3.96E-03	3.64E-03	3.24E-03	0.00E+00	5.45E-03	9.31E-03	1.49E-03	3.27E-03	potential residence	0.01	2027
564270_4183350	564270	4183350	1.98E-03	1.82E-03	1.62E-03	0.00E+00	2.61E-03	4.46E-03	7.15E-04	1.57E-03	potential residence	0.00	2027
564290_4183350	564290	4183350	2.11E-03	1.94E-03	1.72E-03	0.00E+00	2.83E-03	4.84E-03	7.75E-04	1.70E-03	potential residence	0.00	2027
564310_4183350	564310	4183350	2.25E-03	2.06E-03	1.84E-03	0.00E+00	3.08E-03	5.25E-03	8.41E-04	1.84E-03	potential residence	0.01	2027
564330_4183350	564330	4183350	2.40E-03	2.21E-03	1.97E-03	0.00E+00	3.35E-03	5.72E-03	9.16E-04	2.01E-03	potential residence	0.01	2027
564350_4183350	564350	4183350	2.57E-03	2.37E-03	2.11E-03	0.00E+00	3.66E-03	6.24E-03	9.99E-04	2.19E-03	potential residence	0.01	2027
564370_4183350	564370	4183350	2.76E-03	2.54E-03	2.26E-03	0.00E+00	3.99E-03	6.80E-03	1.09E-03	2.39E-03	potential residence	0.01	2027
564390_4183350	564390	4183350	2.96E-03	2.72E-03	2.43E-03	0.00E+00	4.34E-03	7.41E-03	1.19E-03	2.60E-03	potential residence	0.01	2027
564410_4183350	564410	4183350	3.19E-03	2.93E-03	2.61E-03	0.00E+00	4.72E-03	8.06E-03	1.29E-03	2.83E-03	potential residence	0.01	2027
564430_4183350	564430	4183350	3.43E-03	3.15E-03	2.81E-03	0.00E+00	5.12E-03	8.74E-03	1.40E-03	3.07E-03	potential residence	0.01	2027
564450_4183350	564450	4183350	3.69E-03	3.39E-03	3.02E-03	0.00E+00	5.53E-03	9.44E-03	1.51E-03	3.31E-03	potential residence	0.01	2027
564270_4183370	564270	4183370	2.02E-03	1.86E-03	1.65E-03	0.00E+00	2.73E-03	4.66E-03	7.45E-04	1.63E-03	potential residence	0.00	2027
564290_4183370	564290	4183370	2.16E-03	1.98E-03	1.77E-03	0.00E+00	2.98E-03	5.08E-03	8.14E-04	1.78E-03	potential residence	0.01	2027
564310_4183370	564310	4183370	2.31E-03	2.12E-03	1.89E-03	0.00E+00	3.25E-03	5.56E-03	8.90E-04	1.95E-03	potential residence	0.01	2027
564330_4183370	564330	4183370	2.48E-03	2.27E-03	2.03E-03	0.00E+00	3.57E-03	6.09E-03	9.75E-04	2.14E-03	potential residence	0.01	2027
564350_4183370	564350	4183370	2.66E-03	2.44E-03	2.18E-03	0.00E+00	3.93E-03	6.70E-03	1.07E-03	2.35E-03	potential residence	0.01	2027
564370_4183370	564370	4183370	2.87E-03	2.63E-03	2.34E-03	0.00E+00	4.32E-03	7.38E-03	1.18E-03	2.59E-03	potential residence	0.01	2027
564390_4183370	564390	4183370	3.09E-03	2.84E-03	2.53E-03	0.00E+00	4.77E-03	8.14E-03	1.30E-03	2.86E-03	potential residence	0.01	2027
564410_4183370	564410	4183370	3.34E-03	3.07E-03	2.73E-03	0.00E+00	5.25E-03	8.96E-03	1.43E-03	3.14E-03	potential residence	0.01	2027
564250_4183390	564250	4183390	1.93E-03	1.77E-03	1.57E-03	0.00E+00	2.59E-03	4.41E-03	7.07E-04	1.55E-03	potential residence	0.00	2027
564270_4183390	564270	4183390	2.06E-03	1.89E-03	1.68E-03	0.00E+00	2.83E-03	4.83E-03	7.73E-04	1.69E-03	potential residence	0.00	2027
564290_4183390	564290	4183390	2.20E-03	2.02E-03	1.80E-03	0.00E+00	3.10E-03	5.30E-03	8.49E-04	1.86E-03	potential residence	0.01	2027
564310_4183390	564310	4183390	2.36E-03	2.17E-03	1.93E-03	0.00E+00	3.42E-03	5.84E-03	9.35E-04	2.05E-03	potential residence	0.01	2027
564330_4183390	564330	4183390	2.54E-03	2.33E-03	2.08E-03	0.00E+00	3.77E-03	6.43E-03	1.03E-03	2.26E-03	potential residence	0.01	2027
564350_4183390	564350	4183390	2.74E-03	2.51E-03	2.24E-03	0.00E+00	4.19E-03	7.15E-03	1.14E-03	2.51E-03	potential residence	0.01	2027
564370_4183390	564370	4183390	2.96E-03	2.72E-03	2.42E-03	0.00E+00	4.66E-03	7.95E-03	1.27E-03	2.79E-03	potential residence	0.01	2027
564690_4183390	564690	4183390	1.16E-02	1.07E-02	9.54E-03	0.00E+00	2.68E-02	4.58E-02	7.33E-03	1.61E-02	potential residence	0.05	2027
564710_4183390	564710	4183390	1.26E-02	1.16E-02	1.03E-02	0.00E+00	2.92E-02	4.99E-02	7.98E-03	1.75E-02	potential residence	0.05	2027
564250_4183410	564250	4183410	1.95E-03	1.79E-03	1.59E-03	0.00E+00	2.65E-03	4.53E-03	7.25E-04	1.59E-03	potential residence	0.00	2027
564270_4183410	564270	4183410	2.09E-03	1.91E-03	1.70E-03	0.00E+00	2.91E-03	4.97E-03	7.96E-04	1.74E-03	potential residence	0.00	2027
564290_4183410	564290	4183410	2.24E-03	2.05E-03	1.83E-03	0.00E+00	3.21E-03	5.48E-03	8.78E-04	1.92E-03	potential residence	0.01	2027
564310_4183410	564310	4183410	2.41E-03	2.21E-03	1.97E-03	0.00E+00	3.55E-03	6.07E-03	9.73E-04	2.13E-03	potential residence	0.01	2027
564330_4183410	564330	4183410	2.60E-03	2.38E-03	2.12E-03	0.00E+00	3.95E-03	6.75E-03	1.08E-03	2.37E-03	potential residence	0.01	2027
564570_4183410	564570	4183410	8.10E-03	7.45E-03	6.64E-03	0.00E+00	1.66E-02	2.83E-02	4.53E-03	9.94E-03	potential residence	0.03	2027
564590_4183410	564590	4183410	9.02E-03	8.29E-03	7.39E-03	0.00E+00	1.87E-02	3.19E-02	5.10E-03	1.12E-02	potential residence	0.03	2027
564690_4183410	564690	4183410	1.43E-02	1.31E-02	1.17E-02	0.00E+00	3.80E-02	6.49E-02	1.04E-02	2.28E-02	potential residence	0.06	2027
564710_4183410	564710	4183410	1.56E-02	1.43E-02	1.28E-02	0.00E+00	3.99E-02	6.81E-02	1.09E-02	2.39E-02	potential residence	0.07	2027
564230_4183430	564230	4183430	1.84E-03	1.69E-03	1.50E-03	0.00E+00	2.46E-03	4.20E-03	6.73E-04	1.47E-03	potential residence	0.00	2027
564250_4183430	564250	4183430	1.97E-03	1.80E-03	1.61E-03	0.00E+00	2.70E-03	4.61E-03	7.38E-04	1.62E-03	potential residence	0.00	2027
564270_4183430	564270	4183430	2.11E-03	1.93E-03	1.72E-03	0.00E+00	2.97E-03	5.08E-03	8.14E-04	1.78E-03	potential residence	0.01	2027
564290_4183430	564290	4183430	2.27E-03	2.08E-03	1.85E-03	0.00E+00	3.29E-03	5.62E-03	9.01E-04	1.97E-03	potential residence	0.01	2027
564550_4183430	564550	4183430	7.96E-03	7.31E-03	6.52E-03	0.00E+00	1.96E-02	3.34E-02	5.35E-03	1.17E-02	potential residence	0.03	2027
564570_4183430	564570	4183430	9.02E-03	8.30E-03	7.39E-03	0.00E+00	2.25E-02	3.84E-02	6.15E-03	1.35E-02	potential residence	0.04	2027
564590_4183430	564590	4183430	1.02E-02	9.40E-03	8.38E-03	0.00E+00	2.62E-02	4.48E-02	7.17E-03	1.57E-02	potential residence	0.04	2027
564630_4183430	564630	4183430	1.30E-02	1.19E-02	1.06E-02	0.00E+00	3.70E-02	6.31E-02	1.01E-02	2.21E-02	potential residence	0.06	2027
564650_4183430	564650	4183430	1.45E-02	1.33E-02	1.19E-02	0.00E+00	4.41E-02	7.53E-02	1.20E-02	2.64E-02	potential residence	0.08	2027
564730_4183430	564730	4183430	2.24E-02	2.06E-02	1.83E-02	0.00E+00	5.20E-02	8.88E-02	1.42E-02	3.12E-02	potential residence	0.09	2027
564230_4183450	564230	4183450	1.85E-03	1.69E-03	1.51E-03	0.00E+00	2.48E-03	4.24E-03	6.80E-04	1.49E-03	potential residence	0.00	2027
564250_4183450	564250	4183450	1.99E-03	1.81E-03	1.62E-03	0.00E+00	2.73E-03	4.66E-03	7.47E-04	1.63E-03	potential residence	0.00	2027
564570_4183450	564570	4183450	9.89E-03	9.09E-03	8.10E-03	0.00E+00	3.16E-02	5.39E-02	8.63E-03	1.89E-02	potential residence	0.05	2027
564590_4183450	564590	4183450	1.14E-02	1.05E-02	9.37E-03	0.00E+00	3.86E-02	6.58E-02	1.05E-02	2.31E-02	potential residence	0.07	2027
564610_4183450	564610	4183450	1.33E-02	1.22E-02	1.09E-02	0.00E+00	4.76E-02	8.13E-02	1.30E-02	2.85E-02	potential residence	0.08	2027
564690_4183450	564690	4183450	2.30E-02	2.12E-02	1.89E-02	0.00E+00	7.92E-02	1.35E-01	2.16E-02	4.75E-02	potential residence	0.14	2027
564710_4183450	564710	4183450	2.62E-02	2.41E-02	2.15E-02	0.00E+00	7.31E-02	1.25E-01	2.00E-02	4.38E-02	potential residence	0.12	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
564730_4183450	564730	4183450	3.01E-02	2.77E-02	2.47E-02	0.00E+00	6.53E-02	1.11E-01	1.78E-02	3.91E-02	potential residence	0.11	2027
564450_4183470	564450	4183470	4.78E-03	4.37E-03	3.89E-03	0.00E+00	1.12E-02	1.92E-02	3.07E-03	6.72E-03	potential residence	0.02	2027
564470_4183470	564470	4183470	5.34E-03	4.89E-03	4.36E-03	0.00E+00	1.39E-02	2.37E-02	3.79E-03	8.30E-03	potential residence	0.02	2027
564490_4183470	564490	4183470	6.03E-03	5.52E-03	4.92E-03	0.00E+00	1.75E-02	2.98E-02	4.78E-03	1.05E-02	potential residence	0.03	2027
564530_4183470	564530	4183470	7.88E-03	7.23E-03	6.44E-03	0.00E+00	2.80E-02	4.78E-02	7.65E-03	1.68E-02	potential residence	0.05	2027
564550_4183470	564550	4183470	9.13E-03	8.38E-03	7.47E-03	0.00E+00	3.55E-02	6.06E-02	9.69E-03	2.13E-02	potential residence	0.06	2027
564570_4183470	564570	4183470	1.07E-02	9.82E-03	8.75E-03	0.00E+00	4.62E-02	7.88E-02	1.26E-02	2.76E-02	potential residence	0.08	2027
564590_4183470	564590	4183470	1.27E-02	1.17E-02	1.04E-02	0.00E+00	6.21E-02	1.06E-01	1.70E-02	3.72E-02	potential residence	0.11	2027
564650_4183470	564650	4183470	2.17E-02	1.99E-02	1.77E-02	0.00E+00	1.31E-01	2.24E-01	3.58E-02	7.85E-02	potential residence	0.22	2027
564670_4183470	564670	4183470	2.55E-02	2.34E-02	2.09E-02	0.00E+00	1.26E-01	2.14E-01	3.43E-02	7.52E-02	potential residence	0.21	2027
564690_4183470	564690	4183470	3.01E-02	2.77E-02	2.47E-02	0.00E+00	1.11E-01	1.89E-01	3.03E-02	6.64E-02	potential residence	0.19	2027
564710_4183470	564710	4183470	3.58E-02	3.30E-02	2.94E-02	0.00E+00	9.41E-02	1.61E-01	2.57E-02	5.64E-02	potential residence	0.16	2027
564730_4183470	564730	4183470	4.33E-02	3.99E-02	3.56E-02	0.00E+00	7.90E-02	1.35E-01	2.16E-02	4.74E-02	potential residence	0.13	2027
564750_4183470	564750	4183470	5.34E-02	4.92E-02	4.38E-02	0.00E+00	6.65E-02	1.13E-01	1.82E-02	3.98E-02	potential residence	0.11	2027
564410_4183490	564410	4183490	3.96E-03	3.57E-03	3.19E-03	0.00E+00	7.92E-03	1.35E-02	2.17E-03	4.74E-03	potential residence	0.01	2027
564430_4183490	564430	4183490	4.35E-03	3.95E-03	3.53E-03	0.00E+00	9.55E-03	1.63E-02	2.61E-03	5.72E-03	potential residence	0.02	2027
564450_4183490	564450	4183490	4.83E-03	4.41E-03	3.93E-03	0.00E+00	1.18E-02	2.01E-02	3.23E-03	7.07E-03	potential residence	0.02	2027
564470_4183490	564470	4183490	5.42E-03	4.96E-03	4.42E-03	0.00E+00	1.50E-02	2.55E-02	4.09E-03	8.96E-03	potential residence	0.03	2027
564490_4183490	564490	4183490	6.15E-03	5.63E-03	5.02E-03	0.00E+00	1.96E-02	3.34E-02	5.35E-03	1.17E-02	potential residence	0.03	2027
564530_4183490	564530	4183490	8.18E-03	7.49E-03	6.68E-03	0.00E+00	3.62E-02	6.19E-02	9.90E-03	2.17E-02	potential residence	0.06	2027
564550_4183490	564550	4183490	9.61E-03	8.80E-03	7.84E-03	0.00E+00	4.99E-02	8.51E-02	1.36E-02	2.99E-02	potential residence	0.09	2027
564610_4183490	564610	4183490	1.71E-02	1.57E-02	1.40E-02	0.00E+00	5.11E-05	1.02E-04	2.49E-05	2.67E-05	Omit	0.00	NA
564630_4183490	564630	4183490	2.13E-02	1.96E-02	1.74E-02	0.00E+00	4.13E-05	8.29E-05	2.01E-05	2.16E-05	Omit	0.00	NA
564650_4183490	564650	4183490	2.62E-02	2.41E-02	2.15E-02	0.00E+00	2.13E-01	3.63E-01	5.81E-02	1.27E-01	potential residence	0.36	2027
564670_4183490	564670	4183490	3.25E-02	2.99E-02	2.66E-02	0.00E+00	1.80E-01	3.08E-01	4.93E-02	1.08E-01	potential residence	0.31	2027
564690_4183490	564690	4183490	4.05E-02	3.73E-02	3.32E-02	0.00E+00	1.45E-01	2.47E-01	3.95E-02	8.68E-02	potential residence	0.25	2027
564710_4183490	564710	4183490	5.18E-02	4.77E-02	4.25E-02	0.00E+00	1.15E-01	1.96E-01	3.13E-02	6.86E-02	potential residence	0.20	2027
564730_4183490	564730	4183490	6.83E-02	6.29E-02	5.60E-02	0.00E+00	9.10E-02	1.55E-01	2.49E-02	5.45E-02	potential residence	0.16	2027
564750_4183490	564750	4183490	9.11E-02	8.40E-02	7.48E-02	0.00E+00	7.38E-02	1.26E-01	2.01E-02	4.42E-02	potential residence	0.13	2027
564370_4183510	564370	4183510	3.21E-03	2.92E-03	2.60E-03	0.00E+00	5.65E-03	9.66E-03	1.55E-03	3.39E-03	potential residence	0.01	2027
564410_4183510	564410	4183510	3.96E-03	3.57E-03	3.19E-03	0.00E+00	7.94E-03	1.36E-02	2.18E-03	4.75E-03	potential residence	0.01	2027
564430_4183510	564430	4183510	4.35E-03	3.95E-03	3.52E-03	0.00E+00	9.63E-03	1.65E-02	2.64E-03	5.77E-03	potential residence	0.02	2027
564450_4183510	564450	4183510	4.84E-03	4.42E-03	3.94E-03	0.00E+00	1.20E-02	2.05E-02	3.28E-03	7.19E-03	potential residence	0.02	2027
564470_4183510	564470	4183510	5.45E-03	4.98E-03	4.44E-03	0.00E+00	1.55E-02	2.64E-02	4.23E-03	9.26E-03	potential residence	0.03	2027
564490_4183510	564490	4183510	6.22E-03	5.68E-03	5.06E-03	0.00E+00	2.09E-02	3.57E-02	5.72E-03	1.25E-02	potential residence	0.04	2027
564510_4183510	564510	4183510	7.18E-03	6.56E-03	5.85E-03	0.00E+00	3.01E-02	5.13E-02	8.22E-03	1.80E-02	potential residence	0.05	2027
564550_4183510	564550	4183510	1.00E-02	9.11E-03	8.12E-03	0.00E+00	7.26E-05	1.46E-04	3.53E-05	3.80E-05	Omit	0.00	NA
564570_4183510	564570	4183510	1.20E-02	1.10E-02	9.80E-03	0.00E+00	5.02E-05	1.01E-04	2.44E-05	2.63E-05	Omit	0.00	NA
564590_4183510	564590	4183510	1.47E-02	1.35E-02	1.21E-02	0.00E+00	4.03E-05	8.09E-05	1.96E-05	2.11E-05	Omit	0.00	NA
564610_4183510	564610	4183510	1.86E-02	1.71E-02	1.53E-02	0.00E+00	3.43E-05	6.88E-05	1.67E-05	1.80E-05	Omit	0.00	NA
564630_4183510	564630	4183510	2.39E-02	2.20E-02	1.96E-02	0.00E+00	3.15E-05	6.32E-05	1.53E-05	1.65E-05	Omit	0.00	NA
564650_4183510	564650	4183510	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00	NA
564710_4183510	564710	4183510	8.13E-02	7.49E-02	6.67E-02	0.00E+00	1.26E-01	2.15E-01	3.45E-02	7.56E-02	potential residence	0.22	2027
564750_4183510	564750	4183510	1.84E-04	6.55E-05	6.49E-05	0.00E+00	7.68E-02	1.31E-01	2.10E-02	4.60E-02	Block1	0.13	2027
564770_4183510	564770	4183510	1.36E-04	4.86E-05	4.81E-05	0.00E+00	6.22E-02	1.06E-01	1.70E-02	3.73E-02	Block1	0.11	2027
564330_4183530	564330	4183530	2.65E-03	2.42E-03	2.16E-03	0.00E+00	4.17E-03	7.13E-03	1.14E-03	2.50E-03	potential residence	0.01	2027
564350_4183530	564350	4183530	2.89E-03	2.63E-03	2.35E-03	0.00E+00	4.77E-03	8.15E-03	1.31E-03	2.86E-03	potential residence	0.01	2027
564370_4183530	564370	4183530	3.16E-03	2.88E-03	2.57E-03	0.00E+00	5.52E-03	9.43E-03	1.51E-03	3.31E-03	potential residence	0.01	2027
564390_4183530	564390	4183530	3.49E-03	3.18E-03	2.83E-03	0.00E+00	6.50E-03	1.11E-02	1.78E-03	3.89E-03	potential residence	0.01	2027
564430_4183530	564430	4183530	4.32E-03	3.92E-03	3.49E-03	0.00E+00	9.45E-03	1.61E-02	2.59E-03	5.66E-03	potential residence	0.02	2027
564450_4183530	564450	4183530	4.82E-03	4.38E-03	3.91E-03	0.00E+00	1.18E-02	2.02E-02	3.24E-03	7.09E-03	potential residence	0.02	2027
564470_4183530	564470	4183530	5.46E-03	4.97E-03	4.43E-03	0.00E+00	1.54E-02	2.63E-02	4.22E-03	9.23E-03	potential residence	0.03	2027
564510_4183530	564510	4183530	7.28E-03	6.59E-03	5.88E-03	0.00E+00	3.11E-02	5.31E-02	8.50E-03	1.86E-02	potential residence	0.05	2027
564550_4183530	564550	4183530	1.00E-02	9.17E-03	8.17E-03	0.00E+00	3.88E-05	7.78E-05	1.89E-05	2.03E-05	Omit	0.00	NA
564570_4183530	564570	4183530	1.22E-02	1.12E-02	1.00E-02	0.00E+00	3.23E-05	6.49E-05	1.57E-05	1.69E-05	Omit	0.00	NA
564590_4183530	564590	4183530	1.52E-02	1.40E-02	1.24E-02	0.00E+00	2.95E-05	5.93E-05	1.44E-05	1.55E-05	Omit	0.00	NA
564610_4183530	564610	4183530	1.92E-02	1.77E-02	1.58E-02	0.00E+00	2.87E-05	5.77E-05	1.40E-05	1.50E-05	Omit	0.00	NA
564630_4183530	564630	4183530	2.51E-02	2.31E-02	2.06E-02	0.00E+00	2.95E-05	5.91E-05	1.43E-05	1.54E-05	Omit	0.00	NA
564650_4183530	564650	4183530	3.54E-02	3.26E-02	2.90E-02	0.00E+00	3.45E-05	6.92E-05	1.68E-05	1.80E-05	Omit	0.00	NA
564710_4183530	564710	4183530	1.77E-04	6.30E-05	6.24E-05	0.00E+00	1.20E-01	2.04E-01	3.27E-02	7.18E-02	Block1	0.20	2027
564730_4183530	564730	4183530	1.32E-04	4.70E-05	4.66E-05	0.00E+00	9.24E-02	1.58E-01	2.52E-02	5.54E-02	Block1	0.16	2027
564750_4183530	564750	4183530	1.05E-04	3.73E-05	3.70E-05	0.00E+00	7.31E-02	1.25E-01	2.00E-02	4.38E-02	Omit	0.00	NA
564770_4183530	564770	4183530	8.60E-05	3.06E-05	3.04E-05	0.00E+00	5.93E-02	1.01E-01	1.62E-02	3.56E-02	Omit	0.00	NA
564790_4183530	564790	4183530	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00	NA
564290_4183550	564290	4183550	2.23E-03	2.03E-03	1.81E-03	0.00E+00	3.19E-03	5.45E-03	8.75E-04	1.91E-03	potential residence	0.01	2027
564310_4183550	564310	4183550	2.40E-03	2.19E-03	1.95E-03	0.00E+00	3.58E-03	6.11E-03	9.79E-04	2.14E-03	potential residence	0.01	2027
564330_4183550	564330	4183550	2.60E-03	2.37E-03	2.12E-03	0.00E+00	4.04E-03	6.90E-03	1.11E-03	2.42E-03	potential residence	0.01	2027
564350_4183550	564350	4183550	2.83E-03	2.58E-03	2.30E-03	0.00E+00	4.61E-03	7.88E-03	1.26E-03	2.76E-03	potential residence	0.01	2027
564370_4183550	564370	4183550	3.09E-03	2.83E-03	2.52E-03	0.00E+00	5.33E-03	9.10E-03	1.46E-03	3.19E-03	potential residence	0.01	2027
564390_4183550	564390	4183550	3.41E-03	3.11E-03	2.77E-03	0.00E+00	6.25E-03	1.07E-02	1.71E-03	3.74E-03	potential residence	0.01	2027
564430_4183550	564430	4183550	4.27E-03	3.86E-03	3.44E-03	0.00E+00	9.10E-03	1.55E-02	2.49E-03	5.45E-03	potential residence	0.02	2027
564470_4183550	564470	4183550	5.46E-03	4.91E-03	4.39E-03	0.00E+00	1.48E-02	2.53E-02	4.05E-03	8.85E-03	potential residence	0.03	2027
564490_4183550	564490	4183550	6.13E-03	5.57E-03	4.97E-03	0.00E+00	2.00E-02	3.42E-02	5.48E-03	1.20E-02	potential residence	0.03	2027
564510_4183550	564510	4183550	7.02E-03	6.41E-03	5.71E-03	0.00E+00	2.91E-02	4.97E-02	7.96E-03	1.74E-02	potential residence	0.05	2027
564530_4183550	564530	4183550	8.21E-03	7.52E-03	6.70E-03	0.00E+00	4.67E-02	7.97E-02	1.27E-02	2.80E-02	potential residence	0.08	2027
564550_4183550	564550	4183550	9.74E-03	8.93E-03	7.96E-03	0.00E+00	2.62E-05	5.25E-05	1.27E-05	1.37E-05	Omit	0.00	NA
564570_4183550	564570	4183550	1.19E-02	1.09E-02	9.75E-03	0.00E+00	2.53E-05	5.07E-05	1.23E-05	1.32E-05	Omit	0.00	NA
564590_4183550	564590	4183550	1.48E-02	1.36E-02	1.21E-02	0.00E+00	2.65E-05	5.32E-05	1.29E-05	1.39E-05	Omit	0.00	NA
564610_4183550	564610	4183550	1.89E-02	1.74E-02	1.55E-02	0.00E+00	3.13E-05	6.29E-05	1.52E-05	1.64E-05	Omit	0.00	NA
564630_4183550	564630	4183550	2.55E-02	2.34E-02	2.09E-02	0.00E+00	4.54E-05	9.10E-05	2.21E-05	2.38E-05	Omit	0.00	NA
564690_4183550	564690	4183550	1.25E-04	4.47E-05	4.43E-05	0.00E+00	1.22E-01	2.08E-01	3.33E-02	7.29E-02	Omit	0.00	NA
564710_4183550	564710	4183550	1.01E-04	3.60E-05	3.56E-05	0.00E+00	9.59E-02	1.64E-01	2.62E-02	5.75E-02	Block1	0.16	2027
564730_4183550	564730	4183550	8.47E-05	3.02E-05	2.99E-05	0.00E+00	7.74E-02	1.32E-01	2.12E-02	4.64E-02	Omit	0.00	NA
564750_4183550	564750	4183550	7.18E-05	2.56E-05	2.53E-05	0.00E+00	6.32E-02	1.08E-01	1.73E-02	3.79E-02	Block1	0.11	2027
564770_4183550	564770	4183550	6.18E-05	2.20E-05	2.18E-05	0.00E+00	5.25E-02	8.96E-02	1.43E-02	3.14E-02	Block1	0.09	2027
564790_4183550	564790	4183550	5.48E-05	1.95E-05	1.93E-05	0.00E+00	4.47E-02	7.63E-02	1.22E-02	2.68E-02	Block1	0.08	2027
564250_4183570	564250	4183570	1.90E-03	1.73E-03	1.54E-03	0.00E+00	2.52E-03	4.30E-03	6.90E-04	1.51E-03	potential residence	0.00	2027
564270_4183570	564270	4183570	2.03E-03	1.85E-03	1.65E-03	0.00E+00	2.78E-03	4.74E-03	7.61E-04	1.66E-03	potential residence	0.00	2027
564290_4183570	564290	4183570	2.18E-03	1.99E-03	1.77E-03	0.00E+00	3.09E-03	5.27E-03	8.45E-04	1.85E-03	potential residence	0.01	2027
564310_4183570	564310	4183570	2.35E-03	2.15E-03	1.91E-03	0.00E+00	3.45E-03	5.90E-03	9.45E-04	2.07E-03	potential residence	0.01	2027
564330_4183570	564330	4183570	2.54E-03	2.32E-03	2.07E-03	0.00E+00	3.89E-03	6.64E-03	1.06E-03	2.33E-03	potential residence	0.01	2027
564350_4183570	564350	4183570	2.76E-03	2.53E-03	2.25E-03	0.00E+00	4.44E-03	7.57E-03	1.21E-03	2.66E-03	potential residence	0.01	2027
564370_4183570	564370	4183570	3.02E-03	2.76E-03	2.46E-03	0.00E+00	5.11E-03	8.72E-03	1.40E-03	3.06E-03	potential residence	0.01	2027
564390_4183570	564390	4183570	3.32E-03	3.04E-03	2.71E-03	0.00E+00	5.97E-03	1.02E-02	1.63E-03	3.58E-03	potential residence	0.01	2027
564430_4183570	564430	4183570	4.14E-03	3.76E-03	3.35E-03	0.00E+00	8.62E-03	1.47E-02	2.36E-03	5.16E-03	potential residence	0.01	2027
564450_4183570	564450	4183570	4.61E-03	4.20E-03	3.74E-03	0.00E+00	1.07E-02	1.83E-02	2.93E-03	6.40E-03	potential residence	0.02	2027
564470_4183570	564470	4183570	5.17E-03	4.72E-03	4.21E-03	0.00E+00	1.37E-02	2.33E-02	3.73E-03	8.18E-03	potential residence	0.02	2027
564490_4183570	564490	4183570	5.87E-03	5.37E-03	4.79E-03	0.00E+00	1.82E-02	3.11E-02	4.99E-03	1.09E-02	potential residence	0.03	2027
564510_4183570	564510	4183570	6.76E-03	6.19E-03	5.52E-03	0.00E+00	2.57E-02	4.39E-02	7.03E-03	1.54E-02	potential residence	0.04	2027
564530_4183570	564530	4183570	7.89E-03	7.24E-03	6.45E-03	0.00E+00	3.82E-02	6.53E-02	1.04E-02	2.29E-02	potential residence	0.07	2027
564550_4183570	564550	4183570	9.38E-03	8.61E-03	7.67E-03	0.00E+00	6.14E-02	1.05E-01	1.68E-02	3.68E-02	potential residence	0.10	2027
564570_4183570	564570	4183570	1.13E-02	1.04E-02	9.28E-03	0.00E+00	2.38E-05	4.77E-05	1.16E-05	1.24E-05	Omit	0.00	NA
564590_4183570	564590	4183570	1.41E-02	1.30E-02	1.15E-02	0.00E+00	3.95E-05	7.93E-05	1.92E-05	2.07E-05	Omit	0.00	NA
564690_4183570	564690	4183570	7.83E-05	2.79E-05	2.76E-05	0.00E+00	8.05E-02	1.37E-01	2.20E-02	4.82E-02	Omit	0.00	NA

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
564710_418357C	564710	4183570	6.60E-05	2.35E-05	2.33E-05	0.00E+00	6.70E-02	1.14E-01	1.83E-02	4.01E-02	Omit	0.00	NA
564730_418357C	564730	4183570	5.91E-05	2.10E-05	2.08E-05	0.00E+00	5.79E-02	9.89E-02	1.58E-02	3.47E-02	Block1	0.10	2027
564750_418357C	564750	4183570	5.21E-05	1.86E-05	1.84E-05	0.00E+00	4.94E-02	8.43E-02	1.35E-02	2.96E-02	Block1	0.08	2027
564770_418357C	564770	4183570	4.66E-05	1.66E-05	1.64E-05	0.00E+00	4.27E-02	7.28E-02	1.17E-02	2.56E-02	Block1	0.07	2027
564230_418359C	564230	4183590	1.73E-03	1.58E-03	1.41E-03	0.00E+00	2.22E-03	3.78E-03	6.07E-04	1.33E-03	potential residence	0.00	2027
564250_418359C	564250	4183590	1.84E-03	1.68E-03	1.50E-03	0.00E+00	2.43E-03	4.15E-03	6.65E-04	1.45E-03	potential residence	0.00	2027
564270_418359C	564270	4183590	1.97E-03	1.80E-03	1.61E-03	0.00E+00	2.68E-03	4.57E-03	7.33E-04	1.60E-03	potential residence	0.00	2027
564290_418359C	564290	4183590	2.12E-03	1.94E-03	1.73E-03	0.00E+00	2.97E-03	5.07E-03	8.12E-04	1.78E-03	potential residence	0.01	2027
564310_418359C	564310	4183590	2.28E-03	2.09E-03	1.86E-03	0.00E+00	3.32E-03	5.66E-03	9.07E-04	1.99E-03	potential residence	0.01	2027
564330_418359C	564330	4183590	2.47E-03	2.26E-03	2.02E-03	0.00E+00	3.73E-03	6.37E-03	1.02E-03	2.23E-03	potential residence	0.01	2027
564350_418359C	564350	4183590	2.68E-03	2.46E-03	2.19E-03	0.00E+00	4.24E-03	7.24E-03	1.16E-03	2.54E-03	potential residence	0.01	2027
564370_418359C	564370	4183590	2.93E-03	2.69E-03	2.39E-03	0.00E+00	4.87E-03	8.32E-03	1.33E-03	2.92E-03	potential residence	0.01	2027
564390_418359C	564390	4183590	3.22E-03	2.95E-03	2.63E-03	0.00E+00	5.68E-03	9.69E-03	1.55E-03	3.40E-03	potential residence	0.01	2027
564410_418359C	564410	4183590	3.55E-03	3.25E-03	2.90E-03	0.00E+00	6.70E-03	1.14E-02	1.83E-03	4.01E-03	potential residence	0.01	2027
564430_418359C	564430	4183590	3.95E-03	3.62E-03	3.22E-03	0.00E+00	8.08E-03	1.38E-02	2.21E-03	4.84E-03	potential residence	0.01	2027
564450_418359C	564450	4183590	4.41E-03	4.04E-03	3.60E-03	0.00E+00	9.93E-03	1.70E-02	2.72E-03	5.95E-03	potential residence	0.02	2027
564470_418359C	564470	4183590	4.95E-03	4.54E-03	4.04E-03	0.00E+00	1.25E-02	2.13E-02	3.41E-03	7.47E-03	potential residence	0.02	2027
564490_418359C	564490	4183590	5.62E-03	5.16E-03	4.60E-03	0.00E+00	1.63E-02	2.78E-02	4.44E-03	9.74E-03	potential residence	0.03	2027
564510_418359C	564510	4183590	6.45E-03	5.93E-03	5.28E-03	0.00E+00	2.17E-02	3.71E-02	5.93E-03	1.30E-02	potential residence	0.04	2027
564530_418359C	564530	4183590	7.53E-03	6.92E-03	6.17E-03	0.00E+00	2.99E-02	5.10E-02	8.15E-03	1.79E-02	potential residence	0.05	2027
564710_418359C	564710	4183590	4.66E-05	1.66E-05	1.64E-05	0.00E+00	4.54E-02	7.76E-02	1.24E-02	2.72E-02	Omit	0.00	NA
564730_418359C	564730	4183590	4.26E-05	1.52E-05	1.50E-05	0.00E+00	4.08E-02	6.96E-02	1.11E-02	2.44E-02	Block1	0.07	2027
564230_418361C	564230	4183610	1.68E-03	1.54E-03	1.37E-03	0.00E+00	2.14E-03	3.65E-03	5.86E-04	1.28E-03	potential residence	0.00	2027
564250_418361C	564250	4183610	1.79E-03	1.64E-03	1.46E-03	0.00E+00	2.34E-03	3.99E-03	6.40E-04	1.40E-03	potential residence	0.00	2027
564270_418361C	564270	4183610	1.92E-03	1.76E-03	1.56E-03	0.00E+00	2.57E-03	4.39E-03	7.04E-04	1.54E-03	potential residence	0.00	2027
564290_418361C	564290	4183610	2.06E-03	1.89E-03	1.68E-03	0.00E+00	2.85E-03	4.87E-03	7.80E-04	1.71E-03	potential residence	0.00	2027
564310_418361C	564310	4183610	2.22E-03	2.03E-03	1.81E-03	0.00E+00	3.18E-03	5.43E-03	8.70E-04	1.90E-03	potential residence	0.01	2027
564330_418361C	564330	4183610	2.40E-03	2.20E-03	1.96E-03	0.00E+00	3.57E-03	6.10E-03	9.77E-04	2.14E-03	potential residence	0.01	2027
564350_418361C	564350	4183610	2.60E-03	2.39E-03	2.13E-03	0.00E+00	4.05E-03	6.91E-03	1.11E-03	2.43E-03	potential residence	0.01	2027
564370_418361C	564370	4183610	2.83E-03	2.60E-03	2.32E-03	0.00E+00	4.63E-03	7.91E-03	1.27E-03	2.78E-03	potential residence	0.01	2027
564390_418361C	564390	4183610	3.10E-03	2.85E-03	2.54E-03	0.00E+00	5.36E-03	9.15E-03	1.46E-03	3.21E-03	potential residence	0.01	2027
564410_418361C	564410	4183610	3.41E-03	3.13E-03	2.79E-03	0.00E+00	6.28E-03	1.07E-02	1.72E-03	3.76E-03	potential residence	0.01	2027
564430_418361C	564430	4183610	3.78E-03	3.47E-03	3.10E-03	0.00E+00	7.52E-03	1.28E-02	2.06E-03	4.51E-03	potential residence	0.01	2027
564450_418361C	564450	4183610	4.23E-03	3.88E-03	3.46E-03	0.00E+00	9.18E-03	1.57E-02	2.51E-03	5.50E-03	potential residence	0.02	2027
564470_418361C	564470	4183610	4.73E-03	4.35E-03	3.88E-03	0.00E+00	1.13E-02	1.93E-02	3.09E-03	6.77E-03	potential residence	0.02	2027
564490_418361C	564490	4183610	5.38E-03	4.94E-03	4.40E-03	0.00E+00	1.43E-02	2.44E-02	3.90E-03	8.55E-03	potential residence	0.02	2027
564510_418361C	564510	4183610	6.16E-03	5.66E-03	5.05E-03	0.00E+00	1.81E-02	3.09E-02	4.95E-03	1.09E-02	potential residence	0.03	2027
564750_418361C	564750	4183610	1.03E-01	9.54E-02	8.50E-02	0.00E+00	2.63E-02	4.49E-02	7.19E-03	1.58E-02	potential residence	0.10	2022
564770_418361C	564770	4183610	1.01E-01	9.30E-02	8.28E-02	0.00E+00	2.43E-02	4.15E-02	6.63E-03	1.46E-02	potential residence	0.10	2022
564830_418361C	564830	4183610	7.82E-02	7.21E-02	6.43E-02	0.00E+00	1.92E-02	3.28E-02	5.25E-03	1.15E-02	potential residence	0.08	2022
564250_418363C	564250	4183630	1.74E-03	1.60E-03	1.42E-03	0.00E+00	2.26E-03	3.85E-03	6.17E-04	1.35E-03	potential residence	0.00	2027
564270_418363C	564270	4183630	1.86E-03	1.71E-03	1.52E-03	0.00E+00	2.48E-03	4.23E-03	6.78E-04	1.49E-03	potential residence	0.00	2027
564290_418363C	564290	4183630	2.00E-03	1.83E-03	1.63E-03	0.00E+00	2.74E-03	4.68E-03	7.50E-04	1.64E-03	potential residence	0.00	2027
564310_418363C	564310	4183630	2.15E-03	1.97E-03	1.76E-03	0.00E+00	3.05E-03	5.21E-03	8.35E-04	1.83E-03	potential residence	0.01	2027
564330_418363C	564330	4183630	2.32E-03	2.13E-03	1.90E-03	0.00E+00	3.43E-03	5.85E-03	9.37E-04	2.05E-03	potential residence	0.01	2027
564350_418363C	564350	4183630	2.51E-03	2.31E-03	2.06E-03	0.00E+00	3.86E-03	6.58E-03	1.05E-03	2.31E-03	potential residence	0.01	2027
564370_418363C	564370	4183630	2.73E-03	2.51E-03	2.24E-03	0.00E+00	4.40E-03	7.51E-03	1.20E-03	2.63E-03	potential residence	0.01	2027
564390_418363C	564390	4183630	2.99E-03	2.75E-03	2.45E-03	0.00E+00	5.08E-03	8.66E-03	1.39E-03	3.04E-03	potential residence	0.01	2027
564410_418363C	564410	4183630	3.17E-03	2.91E-03	2.60E-03	0.00E+00	5.90E-03	1.01E-02	1.61E-03	3.53E-03	potential residence	0.01	2027
564430_418363C	564430	4183630	3.51E-03	3.23E-03	2.87E-03	0.00E+00	6.99E-03	1.19E-02	1.91E-03	4.19E-03	potential residence	0.01	2027
564450_418363C	564450	4183630	4.05E-03	3.72E-03	3.31E-03	0.00E+00	8.40E-03	1.43E-02	2.29E-03	5.03E-03	potential residence	0.01	2027
564470_418363C	564470	4183630	4.54E-03	4.17E-03	3.72E-03	0.00E+00	1.01E-02	1.73E-02	2.77E-03	6.08E-03	potential residence	0.02	2027
564690_418363C	564690	4183630	3.57E-02	3.29E-02	2.93E-02	0.00E+00	2.30E-02	3.93E-02	6.29E-03	1.38E-02	potential residence	0.04	2027
564750_418363C	564750	4183630	5.54E-02	5.11E-02	4.55E-02	0.00E+00	1.93E-02	3.29E-02	5.26E-03	1.15E-02	potential residence	0.06	2022
564770_418363C	564770	4183630	5.65E-02	5.21E-02	4.64E-02	0.00E+00	1.81E-02	3.09E-02	4.95E-03	1.09E-02	potential residence	0.06	2022
564790_418363C	564790	4183630	5.60E-02	5.16E-02	4.60E-02	0.00E+00	1.71E-02	2.92E-02	4.67E-03	1.03E-02	potential residence	0.06	2022
564810_418363C	564810	4183630	5.39E-02	4.97E-02	4.42E-02	0.00E+00	1.62E-02	2.76E-02	4.41E-03	9.68E-03	potential residence	0.05	2022
564830_418363C	564830	4183630	5.06E-02	4.67E-02	4.16E-02	0.00E+00	1.52E-02	2.60E-02	4.16E-03	9.13E-03	potential residence	0.05	2022
564890_418363C	564890	4183630	3.83E-02	3.53E-02	3.14E-02	0.00E+00	1.25E-02	2.14E-02	3.42E-03	7.51E-03	potential residence	0.04	2022
564910_418363C	564910	4183630	3.48E-02	3.21E-02	2.86E-02	0.00E+00	1.17E-02	2.01E-02	3.21E-03	7.04E-03	potential residence	0.03	2022
564250_418365C	564250	4183650	1.69E-03	1.55E-03	1.38E-03	0.00E+00	2.18E-03	3.72E-03	5.96E-04	1.31E-03	potential residence	0.00	2027
564270_418365C	564270	4183650	1.81E-03	1.66E-03	1.48E-03	0.00E+00	2.39E-03	4.08E-03	6.54E-04	1.43E-03	potential residence	0.00	2027
564290_418365C	564290	4183650	1.94E-03	1.78E-03	1.58E-03	0.00E+00	2.64E-03	4.50E-03	7.21E-04	1.58E-03	potential residence	0.00	2027
564310_418365C	564310	4183650	2.08E-03	1.91E-03	1.70E-03	0.00E+00	2.93E-03	5.00E-03	8.00E-04	1.75E-03	potential residence	0.00	2027
564330_418365C	564330	4183650	2.25E-03	2.06E-03	1.84E-03	0.00E+00	3.28E-03	5.60E-03	8.97E-04	1.97E-03	potential residence	0.01	2027
564350_418365C	564350	4183650	2.43E-03	2.23E-03	1.99E-03	0.00E+00	3.69E-03	6.30E-03	1.01E-03	2.21E-03	potential residence	0.01	2027
564370_418365C	564370	4183650	2.55E-03	2.34E-03	2.09E-03	0.00E+00	4.17E-03	7.13E-03	1.14E-03	2.50E-03	potential residence	0.01	2027
564390_418365C	564390	4183650	2.79E-03	2.57E-03	2.29E-03	0.00E+00	4.80E-03	8.20E-03	1.31E-03	2.88E-03	potential residence	0.01	2027
564410_418365C	564410	4183650	3.06E-03	2.81E-03	2.51E-03	0.00E+00	5.56E-03	9.50E-03	1.52E-03	3.33E-03	potential residence	0.01	2027
564430_418365C	564430	4183650	3.37E-03	3.10E-03	2.76E-03	0.00E+00	6.50E-03	1.11E-02	1.78E-03	3.89E-03	potential residence	0.01	2027
564450_418365C	564450	4183650	3.74E-03	3.44E-03	3.07E-03	0.00E+00	7.64E-03	1.30E-02	2.09E-03	4.57E-03	potential residence	0.01	2027
564670_418365C	564670	4183650	2.18E-02	2.01E-02	1.79E-02	0.00E+00	1.72E-02	2.93E-02	4.69E-03	1.03E-02	potential residence	0.03	2027
564690_418365C	564690	4183650	2.56E-02	2.36E-02	2.10E-02	0.00E+00	1.66E-02	2.84E-02	4.55E-03	9.97E-03	potential residence	0.03	2027
564710_418365C	564710	4183650	3.04E-02	2.80E-02	2.50E-02	0.00E+00	1.60E-02	2.74E-02	4.38E-03	9.60E-03	potential residence	0.03	2022
564730_418365C	564730	4183650	3.30E-02	3.04E-02	2.71E-02	0.00E+00	1.53E-02	2.60E-02	4.17E-03	9.14E-03	potential residence	0.03	2022
564750_418365C	564750	4183650	3.49E-02	3.21E-02	2.86E-02	0.00E+00	1.45E-02	2.47E-02	3.96E-03	8.68E-03	potential residence	0.03	2022
564770_418365C	564770	4183650	3.60E-02	3.32E-02	2.96E-02	0.00E+00	1.38E-02	2.36E-02	3.78E-03	8.29E-03	potential residence	0.04	2022
564790_418365C	564790	4183650	3.62E-02	3.33E-02	2.97E-02	0.00E+00	1.32E-02	2.26E-02	3.61E-03	7.92E-03	potential residence	0.04	2022
564810_418365C	564810	4183650	3.54E-02	3.27E-02	2.91E-02	0.00E+00	1.26E-02	2.16E-02	3.45E-03	7.56E-03	potential residence	0.04	2022
564830_418365C	564830	4183650	3.41E-02	3.14E-02	2.80E-02	0.00E+00	1.20E-02	2.06E-02	3.29E-03	7.22E-03	potential residence	0.03	2022
564850_418365C	564850	4183650	3.22E-02	2.97E-02	2.64E-02	0.00E+00	1.15E-02	1.96E-02	3.13E-03	6.86E-03	potential residence	0.03	2022
564870_418365C	564870	4183650	3.02E-02	2.78E-02	2.48E-02	0.00E+00	1.09E-02	1.86E-02	2.98E-03	6.53E-03	potential residence	0.03	2022
564890_418365C	564890	4183650	2.80E-02	2.58E-02	2.30E-02	0.00E+00	1.03E-02	1.76E-02	2.82E-03	6.18E-03	potential residence	0.03	2022
564910_418365C	564910	4183650	2.60E-02	2.40E-02	2.14E-02	0.00E+00	9.67E-03	1.65E-02	2.64E-03	5.79E-03	potential residence	0.03	2022
564270_418367C	564270	4183670	1.71E-03	1.57E-03	1.40E-03	0.00E+00	2.30E-03	3.93E-03	6.30E-04	1.38E-03	potential residence	0.00	2027
564290_418367C	564290	4183670	1.83E-03	1.68E-03	1.50E-03	0.00E+00	2.54E-03	4.33E-03	6.94E-04	1.52E-03	potential residence	0.00	2027
564310_418367C	564310	4183670	2.02E-03	1.85E-03	1.65E-03	0.00E+00	2.82E-03	4.81E-03	7.70E-04	1.69E-03	potential residence	0.00	2027
564330_418367C	564330	4183670	2.11E-03	1.94E-03	1.73E-03	0.00E+00	3.14E-03	5.36E-03	8.59E-04	1.88E-03	potential residence	0.01	2027
564350_418367C	564350	4183670	2.28E-03	2.10E-03	1.87E-03	0.00E+00	3.53E-03	6.03E-03	9.65E-04	2.11E-03	potential residence	0.01	2027
564370_418367C	564370	4183670	2.47E-03	2.27E-03	2.02E-03	0.00E+00	3.98E-03	6.80E-03	1.09E-03	2.39E-03	potential residence	0.01	2027
564390_418367C	564390	4183670	2.69E-03	2.48E-03	2.21E-03	0.00E+00	4.54E-03	7.75E-03	1.24E-03	2.72E-03	potential residence	0.01	2027
564410_418367C	564410	4183670	2.95E-03	2.71E-03	2.41E-03	0.00E+00	5.20E-03	8.87E-03	1.42E-03	3.11E-03	potential residence	0.01	2027
564430_418367C	564430	4183670	3.24E-03	2.98E-03	2.66E-03	0.00E+00	5.97E-03	1.02E-02	1.63E-03	3.58E-03	potential residence	0.01	2027
564450_418367C	564450	4183670	3.58E-03	3.30E-03	2.94E-03	0.00E+00	6.84E-03	1.17E-02	1.87E-03	4.10E-03	potential residence	0.01	2027
564470_418367C	564470	4183670	4.00E-03	3.68E-03	3.28E-03	0.00E+00	7.82E-03	1.34E-02	2.14E-03	4.69E-03	potential residence	0.01	2027
564650_418367C	564650	4183670	1.49E-02	1.37E-02	1.22E-02	0.00E+00	1.26E-02	2.15E-02	3.44E-03	7.54E-03	potential residence	0.02	2027
564670_418367C	564670	4183670	1.71E-02	1.57E-02	1.40E-02	0.00E+00	1.29E-02	2.20E-02	3.52E-03	7.72E-03	potential residence	0.02	2027
564730_418367C	564730	4183670	2.31E-02	2.13E-02	1.90E-02	0.00E+00	1.18E-02	2.01E-02	3.22E-03	7.06E-03	potential residence	0.02	2022
564750_418367C	564750	4183670	2.40E-02	2.22E-02	1.97E-02	0.00E+00	1.13E-02	1.92E-02	3.08E-03	6.75E-03	potential residence	0.02	2022
564770_418367C	564770	4183670	2.49E-02	2.29E-02	2.04E-02	0.00E+00	1.09E-02	1.85E-02	2.96E-03	6.50E-03	potential residence	0.02	2022
564790_418367C	564790	4183670	2.50E-02	2.31E-02	2.06E-02	0.00E+00	1.04E-02	1.78E-02	2.85E-03	6.24E-03	potential residence	0.03	2022
564810_418367C	564810	4183670	2.48E-02	2.29E-02	2.04E-02	0.00E+00	1.00E-02	1.71E-02	2.74E-03	6.00E-03	potential residence	0.02	2022
564830_418367C	564830	4183670	2.42E-02	2.23E-02	1.99E-02	0.00E+00	9.62E-03	1.64E-02	2.63E-03	5.77E-03	potential residence	0.02	2022
564850_418367C	564850	4183670	2.38E-02	2.20E-02	1.96E-02	0.00E+00	9.30E-03	1.59E-02	2.54E-03	5.57E-03	potential residence	0.02	2022

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
564870_4183670	564870	4183670	2.23E-02	2.06E-02	1.84E-02	0.00E+00	8.79E-03	1.50E-02	2.40E-03	5.27E-03	potential residence	0.02	2022
564890_4183670	564890	4183670	2.10E-02	1.94E-02	1.73E-02	0.00E+00	8.41E-03	1.44E-02	2.30E-03	5.04E-03	potential residence	0.02	2022
564910_4183670	564910	4183670	1.99E-02	1.83E-02	1.63E-02	0.00E+00	8.07E-03	1.38E-02	2.20E-03	4.84E-03	potential residence	0.02	2022
564930_4183670	564930	4183670	1.86E-02	1.71E-02	1.52E-02	0.00E+00	7.77E-03	1.33E-02	2.12E-03	4.65E-03	potential residence	0.02	2022
564270_4183690	564270	4183690	1.65E-03	1.52E-03	1.35E-03	0.00E+00	2.22E-03	3.80E-03	6.08E-04	1.33E-03	potential residence	0.00	2027
564290_4183690	564290	4183690	1.77E-03	1.62E-03	1.45E-03	0.00E+00	2.45E-03	4.18E-03	6.69E-04	1.47E-03	potential residence	0.00	2027
564310_4183690	564310	4183690	1.90E-03	1.74E-03	1.55E-03	0.00E+00	2.71E-03	4.62E-03	7.40E-04	1.62E-03	potential residence	0.00	2027
564330_4183690	564330	4183690	2.04E-03	1.88E-03	1.67E-03	0.00E+00	3.01E-03	5.14E-03	8.23E-04	1.80E-03	potential residence	0.01	2027
564350_4183690	564350	4183690	2.20E-03	2.03E-03	1.81E-03	0.00E+00	3.37E-03	5.75E-03	9.20E-04	2.02E-03	potential residence	0.01	2027
564370_4183690	564370	4183690	2.39E-03	2.20E-03	1.96E-03	0.00E+00	3.78E-03	6.46E-03	1.03E-03	2.27E-03	potential residence	0.01	2027
564390_4183690	564390	4183690	2.60E-03	2.39E-03	2.13E-03	0.00E+00	4.26E-03	7.27E-03	1.16E-03	2.55E-03	potential residence	0.01	2027
564410_4183690	564410	4183690	2.84E-03	2.61E-03	2.32E-03	0.00E+00	4.81E-03	8.21E-03	1.31E-03	2.88E-03	potential residence	0.01	2027
564430_4183690	564430	4183690	3.11E-03	2.86E-03	2.55E-03	0.00E+00	5.25E-03	8.96E-03	1.43E-03	3.14E-03	potential residence	0.01	2027
564450_4183690	564450	4183690	3.43E-03	3.16E-03	2.81E-03	0.00E+00	5.88E-03	1.00E-02	1.61E-03	3.52E-03	potential residence	0.01	2027
564470_4183690	564470	4183690	3.83E-03	3.53E-03	3.14E-03	0.00E+00	6.76E-03	1.15E-02	1.85E-03	4.05E-03	potential residence	0.01	2027
564570_4183690	564570	4183690	7.29E-03	6.71E-03	5.98E-03	0.00E+00	9.03E-03	1.54E-02	2.47E-03	5.41E-03	potential residence	0.02	2027
564590_4183690	564590	4183690	8.37E-03	7.71E-03	6.87E-03	0.00E+00	9.26E-03	1.58E-02	2.53E-03	5.54E-03	potential residence	0.02	2027
564650_4183690	564650	4183690	1.22E-02	1.12E-02	1.00E-02	0.00E+00	9.68E-03	1.65E-02	2.64E-03	5.80E-03	potential residence	0.02	2027
564670_4183690	564670	4183690	1.34E-02	1.24E-02	1.10E-02	0.00E+00	9.68E-03	1.65E-02	2.64E-03	5.80E-03	potential residence	0.02	2027
564730_4183690	564730	4183690	1.71E-02	1.58E-02	1.41E-02	0.00E+00	9.40E-03	1.60E-02	2.57E-03	5.63E-03	potential residence	0.02	2022
564750_4183690	564750	4183690	1.76E-02	1.62E-02	1.45E-02	0.00E+00	9.02E-03	1.54E-02	2.46E-03	5.40E-03	potential residence	0.02	2022
564770_4183690	564770	4183690	1.81E-02	1.67E-02	1.48E-02	0.00E+00	8.71E-03	1.49E-02	2.38E-03	5.22E-03	potential residence	0.02	2022
564790_4183690	564790	4183690	1.82E-02	1.68E-02	1.50E-02	0.00E+00	8.39E-03	1.43E-02	2.29E-03	5.02E-03	potential residence	0.02	2022
564810_4183690	564810	4183690	1.81E-02	1.67E-02	1.48E-02	0.00E+00	8.06E-03	1.38E-02	2.20E-03	4.83E-03	potential residence	0.02	2022
564830_4183690	564830	4183690	1.78E-02	1.64E-02	1.46E-02	0.00E+00	7.76E-03	1.33E-02	2.12E-03	4.65E-03	potential residence	0.02	2022
564850_4183690	564850	4183690	1.74E-02	1.60E-02	1.43E-02	0.00E+00	7.53E-03	1.28E-02	2.06E-03	4.51E-03	potential residence	0.02	2022
564870_4183690	564870	4183690	1.70E-02	1.57E-02	1.40E-02	0.00E+00	7.33E-03	1.25E-02	2.00E-03	4.39E-03	potential residence	0.02	2022
564890_4183690	564890	4183690	1.63E-02	1.50E-02	1.34E-02	0.00E+00	7.04E-03	1.20E-02	1.92E-03	4.22E-03	potential residence	0.02	2022
564910_4183690	564910	4183690	1.55E-02	1.43E-02	1.27E-02	0.00E+00	6.77E-03	1.16E-02	1.85E-03	4.05E-03	potential residence	0.02	2022
564930_4183690	564930	4183690	1.46E-02	1.35E-02	1.20E-02	0.00E+00	6.52E-03	1.11E-02	1.78E-03	3.91E-03	potential residence	0.01	2022
564290_4183710	564290	4183710	1.72E-03	1.58E-03	1.41E-03	0.00E+00	2.36E-03	4.03E-03	6.46E-04	1.42E-03	potential residence	0.00	2027
564310_4183710	564310	4183710	1.84E-03	1.69E-03	1.51E-03	0.00E+00	2.61E-03	4.45E-03	7.13E-04	1.56E-03	potential residence	0.00	2027
564330_4183710	564330	4183710	1.98E-03	1.82E-03	1.62E-03	0.00E+00	2.89E-03	4.93E-03	7.88E-04	1.73E-03	potential residence	0.00	2027
564350_4183710	564350	4183710	2.14E-03	1.97E-03	1.75E-03	0.00E+00	3.21E-03	5.47E-03	8.76E-04	1.92E-03	potential residence	0.01	2027
564370_4183710	564370	4183710	2.31E-03	2.13E-03	1.89E-03	0.00E+00	3.57E-03	6.09E-03	9.74E-04	2.14E-03	potential residence	0.01	2027
564390_4183710	564390	4183710	2.50E-03	2.30E-03	2.05E-03	0.00E+00	3.86E-03	6.58E-03	1.05E-03	2.31E-03	potential residence	0.01	2027
564410_4183710	564410	4183710	2.72E-03	2.50E-03	2.23E-03	0.00E+00	4.26E-03	7.27E-03	1.16E-03	2.55E-03	potential residence	0.01	2027
564430_4183710	564430	4183710	2.99E-03	2.75E-03	2.45E-03	0.00E+00	4.73E-03	8.07E-03	1.29E-03	2.83E-03	potential residence	0.01	2027
564450_4183710	564450	4183710	3.30E-03	3.04E-03	2.71E-03	0.00E+00	5.19E-03	8.87E-03	1.42E-03	3.11E-03	potential residence	0.01	2027
564470_4183710	564470	4183710	3.67E-03	3.38E-03	3.01E-03	0.00E+00	5.63E-03	9.61E-03	1.54E-03	3.37E-03	potential residence	0.01	2027
564490_4183710	564490	4183710	4.11E-03	3.78E-03	3.37E-03	0.00E+00	6.04E-03	1.03E-02	1.65E-03	3.62E-03	potential residence	0.01	2027
564530_4183710	564530	4183710	5.21E-03	4.80E-03	4.28E-03	0.00E+00	6.73E-03	1.15E-02	1.84E-03	4.03E-03	potential residence	0.01	2027
564550_4183710	564550	4183710	5.87E-03	5.40E-03	4.81E-03	0.00E+00	6.96E-03	1.19E-02	1.90E-03	4.17E-03	potential residence	0.01	2027
564570_4183710	564570	4183710	6.63E-03	6.10E-03	5.44E-03	0.00E+00	7.16E-03	1.22E-02	1.96E-03	4.29E-03	potential residence	0.01	2027
564590_4183710	564590	4183710	7.48E-03	6.89E-03	6.14E-03	0.00E+00	7.33E-03	1.25E-02	2.00E-03	4.39E-03	potential residence	0.01	2027
564650_4183710	564650	4183710	1.01E-02	9.28E-03	8.26E-03	0.00E+00	7.68E-03	1.31E-02	2.10E-03	4.60E-03	potential residence	0.01	2027
564670_4183710	564670	4183710	1.09E-02	1.00E-02	8.91E-03	0.00E+00	7.96E-03	1.36E-02	2.17E-03	4.77E-03	potential residence	0.01	2027
564690_4183710	564690	4183710	1.16E-02	1.07E-02	9.53E-03	0.00E+00	7.94E-03	1.36E-02	2.17E-03	4.76E-03	potential residence	0.01	2027
564710_4183710	564710	4183710	1.21E-02	1.12E-02	9.97E-03	0.00E+00	7.80E-03	1.33E-02	2.13E-03	4.67E-03	potential residence	0.01	2027
564730_4183710	564730	4183710	1.32E-02	1.21E-02	1.08E-02	0.00E+00	7.63E-03	1.30E-02	2.08E-03	4.57E-03	potential residence	0.01	2022
564750_4183710	564750	4183710	1.35E-02	1.24E-02	1.11E-02	0.00E+00	7.40E-03	1.26E-02	2.02E-03	4.43E-03	potential residence	0.01	2022
564770_4183710	564770	4183710	1.37E-02	1.26E-02	1.12E-02	0.00E+00	7.13E-03	1.22E-02	1.95E-03	4.27E-03	potential residence	0.01	2022
564790_4183710	564790	4183710	1.38E-02	1.27E-02	1.13E-02	0.00E+00	6.90E-03	1.18E-02	1.88E-03	4.13E-03	potential residence	0.01	2022
564810_4183710	564810	4183710	1.38E-02	1.27E-02	1.13E-02	0.00E+00	6.65E-03	1.13E-02	1.82E-03	3.98E-03	potential residence	0.01	2022
564830_4183710	564830	4183710	1.36E-02	1.25E-02	1.12E-02	0.00E+00	6.40E-03	1.09E-02	1.75E-03	3.84E-03	potential residence	0.01	2022
564850_4183710	564850	4183710	1.32E-02	1.22E-02	1.09E-02	0.00E+00	6.16E-03	1.05E-02	1.68E-03	3.69E-03	potential residence	0.01	2022
564870_4183710	564870	4183710	1.29E-02	1.19E-02	1.06E-02	0.00E+00	5.98E-03	1.02E-02	1.63E-03	3.58E-03	potential residence	0.01	2022
564890_4183710	564890	4183710	1.29E-02	1.19E-02	1.06E-02	0.00E+00	5.91E-03	1.01E-02	1.62E-03	3.54E-03	potential residence	0.01	2022
564910_4183710	564910	4183710	1.23E-02	1.13E-02	1.01E-02	0.00E+00	5.71E-03	9.74E-03	1.56E-03	3.42E-03	potential residence	0.01	2022
564930_4183710	564930	4183710	1.18E-02	1.08E-02	9.66E-03	0.00E+00	5.51E-03	9.41E-03	1.51E-03	3.30E-03	potential residence	0.01	2022
564950_4183710	564950	4183710	1.13E-02	1.04E-02	9.25E-03	0.00E+00	5.30E-03	9.05E-03	1.45E-03	3.18E-03	potential residence	0.01	2022
564310_4183730	564310	4183730	1.79E-03	1.65E-03	1.47E-03	0.00E+00	2.50E-03	4.27E-03	6.84E-04	1.50E-03	potential residence	0.00	2027
564330_4183730	564330	4183730	1.92E-03	1.76E-03	1.57E-03	0.00E+00	2.68E-03	4.57E-03	7.31E-04	1.60E-03	potential residence	0.00	2027
564350_4183730	564350	4183730	2.07E-03	1.90E-03	1.70E-03	0.00E+00	2.95E-03	5.04E-03	8.06E-04	1.77E-03	potential residence	0.01	2027
564370_4183730	564370	4183730	2.24E-03	2.07E-03	1.84E-03	0.00E+00	3.26E-03	5.57E-03	8.92E-04	1.96E-03	potential residence	0.01	2027
564390_4183730	564390	4183730	2.42E-03	2.23E-03	1.99E-03	0.00E+00	3.57E-03	6.09E-03	9.75E-04	2.14E-03	potential residence	0.01	2027
564410_4183730	564410	4183730	2.64E-03	2.43E-03	2.16E-03	0.00E+00	3.90E-03	6.65E-03	1.06E-03	2.33E-03	potential residence	0.01	2027
564430_4183730	564430	4183730	2.90E-03	2.67E-03	2.38E-03	0.00E+00	4.25E-03	7.26E-03	1.16E-03	2.55E-03	potential residence	0.01	2027
564450_4183730	564450	4183730	3.20E-03	2.94E-03	2.62E-03	0.00E+00	4.59E-03	7.83E-03	1.25E-03	2.75E-03	potential residence	0.01	2027
564470_4183730	564470	4183730	3.54E-03	3.26E-03	2.90E-03	0.00E+00	4.88E-03	8.33E-03	1.33E-03	2.92E-03	potential residence	0.01	2027
564490_4183730	564490	4183730	3.94E-03	3.63E-03	3.23E-03	0.00E+00	5.15E-03	8.78E-03	1.41E-03	3.08E-03	potential residence	0.01	2027
564510_4183730	564510	4183730	4.38E-03	4.04E-03	3.60E-03	0.00E+00	5.38E-03	9.18E-03	1.47E-03	3.22E-03	potential residence	0.01	2027
564530_4183730	564530	4183730	4.89E-03	4.50E-03	4.01E-03	0.00E+00	5.59E-03	9.54E-03	1.53E-03	3.35E-03	potential residence	0.01	2027
564550_4183730	564550	4183730	5.43E-03	5.00E-03	4.45E-03	0.00E+00	5.75E-03	9.81E-03	1.57E-03	3.44E-03	potential residence	0.01	2027
564570_4183730	564570	4183730	6.03E-03	5.56E-03	4.95E-03	0.00E+00	5.89E-03	1.00E-02	1.61E-03	3.53E-03	potential residence	0.01	2027
564590_4183730	564590	4183730	6.67E-03	6.14E-03	5.47E-03	0.00E+00	5.99E-03	1.02E-02	1.64E-03	3.59E-03	potential residence	0.01	2027
564610_4183730	564610	4183730	7.30E-03	6.73E-03	5.99E-03	0.00E+00	6.10E-03	1.04E-02	1.67E-03	3.66E-03	potential residence	0.01	2027
564630_4183730	564630	4183730	7.90E-03	7.28E-03	6.48E-03	0.00E+00	6.20E-03	1.06E-02	1.69E-03	3.72E-03	potential residence	0.01	2027
564650_4183730	564650	4183730	8.41E-03	7.75E-03	6.90E-03	0.00E+00	6.27E-03	1.07E-02	1.71E-03	3.76E-03	potential residence	0.01	2027
564670_4183730	564670	4183730	8.90E-03	8.20E-03	7.30E-03	0.00E+00	6.32E-03	1.08E-02	1.73E-03	3.79E-03	potential residence	0.01	2027
564690_4183730	564690	4183730	9.36E-03	8.62E-03	7.68E-03	0.00E+00	6.48E-03	1.11E-02	1.77E-03	3.88E-03	potential residence	0.01	2027
564710_4183730	564710	4183730	9.70E-03	8.93E-03	7.96E-03	0.00E+00	6.41E-03	1.09E-02	1.75E-03	3.84E-03	potential residence	0.01	2027
564730_4183730	564730	4183730	9.98E-03	9.20E-03	8.19E-03	0.00E+00	6.30E-03	1.08E-02	1.72E-03	3.78E-03	potential residence	0.01	2027
564750_4183730	564750	4183730	1.07E-02	9.82E-03	8.75E-03	0.00E+00	6.17E-03	1.05E-02	1.68E-03	3.69E-03	potential residence	0.01	2022
564770_4183730	564770	4183730	1.08E-02	9.95E-03	8.86E-03	0.00E+00	5.99E-03	1.02E-02	1.64E-03	3.59E-03	potential residence	0.01	2022
564790_4183730	564790	4183730	1.08E-02	9.98E-03	8.89E-03	0.00E+00	5.78E-03	9.87E-03	1.58E-03	3.46E-03	potential residence	0.01	2022
564810_4183730	564810	4183730	1.09E-02	1.00E-02	8.92E-03	0.00E+00	5.60E-03	9.56E-03	1.53E-03	3.36E-03	potential residence	0.01	2022
564830_4183730	564830	4183730	1.08E-02	9.97E-03	8.88E-03	0.00E+00	5.42E-03	9.24E-03	1.48E-03	3.24E-03	potential residence	0.01	2022
564850_4183730	564850	4183730	1.07E-02	9.82E-03	8.75E-03	0.00E+00	5.24E-03	8.94E-03	1.43E-03	3.14E-03	potential residence	0.01	2022
564870_4183730	564870	4183730	1.03E-02	9.49E-03	8.45E-03	0.00E+00	5.03E-03	8.58E-03	1.37E-03	3.01E-03	potential residence	0.01	2022
564890_4183730	564890	4183730	1.05E-02	9.69E-03	8.63E-03	0.00E+00	5.03E-03	8.59E-03	1.37E-03	3.01E-03	potential residence	0.01	2022
564910_4183730	564910	4183730	1.01E-02	9.29E-03	8.27E-03	0.00E+00	4.87E-03	8.31E-03	1.33E-03	2.92E-03	potential residence	0.01	2022
564930_4183730	564930	4183730	9.69E-03	8.93E-03	7.95E-03	0.00E+00	4.71E-03	8.05E-03	1.29E-03	2.82E-03	potential residence	0.01	2022
564950_4183730	564950	4183730	9.31E-03	8.58E-03	7.65E-03	0.00E+00	4.55E-03	7.77E-03	1.24E-03	2.73E-03	potential residence	0.01	2022
564330_4183750	564330	4183750	1.86E-03	1.71E-03	1.52E-03	0.00E+00	2.54E-03	4.33E-03	6.93E-04	1.52E-03	potential residence	0.00	2027
564350_4183750	564350	4183750	2.01E-03	1.85E-03	1.65E-03	0.00E+00	2.78E-03	4.75E-03	7.60E-04	1.67E-03	potential residence	0.00	2027
564370_4183750	564370	4183750	2.17E-03	2.00E-03	1.78E-03	0.00E+00	3.03E-03	5.18E-03	8.28E-04	1.82E-03	potential residence	0.01	2027
564390_4183750	564390	4183750	2.36E-03	2.17E-03	1.94E-03	0.00E+00	3.30E-03	5.63E-03	9.02E-04	1.98E-03	potential residence	0.01	2027
564410_4183750	564410	4183750	2.57E-03	2.36E-03	2.11E-03	0.00E+00	3.56E-03	6.07E-03	9.72E-04	2.13E-03	potential residence	0.01	2027
564430_4183750	564430	4183750	2.81E-03	2.59E-03	2.30E-03	0.00E+00	3.81E-03	6.50E-03	1.04E-03	2.28E-03	potential residence	0.01	2027
564450_4183750	564450	4183750	3.09E-03	2.84E-03	2.53E-03	0.00E+00	4.04E-03	6.89E-03	1.10E-03	2.42E-03	potential residence	0.01	2027
564470_4183750	564470	4183750	3.39E-03	3.12E-03	2.78E-03	0.00E+00	4.22E-03	7.21E-03	1.15E-03	2.53E-03	potential residence	0.01	2027
564490_4183750	564490	4183750	3.74E-03	3.45E-03	3.07E-03	0.00E+00	4.40E-03	7.51E-03	1.20E-03	2.64E-03	potential residence	0.01	2027
564510_4183750	564510	4183750	4.15E-03	3.82E-03	3.40E-03	0.00E+00	4.59E-03	7.83E-03	1.25E-03	2.75E-03	potential residence	0.01	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
564530_4183750	564530	4183750	4.54E-03	4.18E-03	3.72E-03	0.00E+00	4.70E-03	8.03E-03	1.28E-03	2.82E-03	potential residence	0.01	2027
564550_4183750	564550	4183750	5.00E-03	4.60E-03	4.10E-03	0.00E+00	4.85E-03	8.27E-03	1.32E-03	2.90E-03	potential residence	0.01	2027
564570_4183750	564570	4183750	5.45E-03	5.02E-03	4.47E-03	0.00E+00	4.93E-03	8.42E-03	1.35E-03	2.95E-03	potential residence	0.01	2027
564590_4183750	564590	4183750	5.92E-03	5.45E-03	4.86E-03	0.00E+00	5.01E-03	8.55E-03	1.37E-03	3.00E-03	potential residence	0.01	2027
564610_4183750	564610	4183750	6.37E-03	5.87E-03	5.23E-03	0.00E+00	5.10E-03	8.71E-03	1.39E-03	3.06E-03	potential residence	0.01	2027
564630_4183750	564630	4183750	6.73E-03	6.20E-03	5.52E-03	0.00E+00	5.14E-03	8.77E-03	1.40E-03	3.08E-03	potential residence	0.01	2027
564650_4183750	564650	4183750	7.07E-03	6.51E-03	5.80E-03	0.00E+00	5.19E-03	8.86E-03	1.42E-03	3.11E-03	potential residence	0.01	2027
564670_4183750	564670	4183750	7.34E-03	6.77E-03	6.03E-03	0.00E+00	5.20E-03	8.88E-03	1.42E-03	3.12E-03	potential residence	0.01	2027
564690_4183750	564690	4183750	7.67E-03	7.07E-03	6.30E-03	0.00E+00	5.25E-03	8.96E-03	1.43E-03	3.14E-03	potential residence	0.01	2027
564710_4183750	564710	4183750	7.91E-03	7.29E-03	6.49E-03	0.00E+00	5.23E-03	8.93E-03	1.43E-03	3.14E-03	potential residence	0.01	2027
564730_4183750	564730	4183750	8.11E-03	7.47E-03	6.66E-03	0.00E+00	5.29E-03	9.04E-03	1.45E-03	3.17E-03	potential residence	0.01	2027
564750_4183750	564750	4183750	8.63E-03	7.96E-03	7.09E-03	0.00E+00	5.21E-03	8.89E-03	1.42E-03	3.12E-03	potential residence	0.01	2027
564770_4183750	564770	4183750	8.74E-03	8.05E-03	7.17E-03	0.00E+00	5.09E-03	8.70E-03	1.39E-03	3.05E-03	potential residence	0.01	2022
564790_4183750	564790	4183750	8.77E-03	8.08E-03	7.20E-03	0.00E+00	4.94E-03	8.44E-03	1.35E-03	2.96E-03	potential residence	0.01	2022
564810_4183750	564810	4183750	8.82E-03	8.13E-03	7.24E-03	0.00E+00	4.80E-03	8.20E-03	1.31E-03	2.88E-03	potential residence	0.01	2022
564830_4183750	564830	4183750	8.83E-03	8.14E-03	7.25E-03	0.00E+00	4.66E-03	7.96E-03	1.27E-03	2.79E-03	potential residence	0.01	2022
564850_4183750	564850	4183750	8.80E-03	8.11E-03	7.23E-03	0.00E+00	4.54E-03	7.75E-03	1.24E-03	2.72E-03	potential residence	0.01	2022
564870_4183750	564870	4183750	8.74E-03	8.06E-03	7.18E-03	0.00E+00	4.43E-03	7.56E-03	1.21E-03	2.65E-03	potential residence	0.01	2022
564890_4183750	564890	4183750	8.72E-03	8.04E-03	7.16E-03	0.00E+00	4.34E-03	7.41E-03	1.19E-03	2.60E-03	potential residence	0.01	2022
564910_4183750	564910	4183750	8.43E-03	7.77E-03	6.92E-03	0.00E+00	4.20E-03	7.17E-03	1.15E-03	2.52E-03	potential residence	0.01	2022
564930_4183750	564930	4183750	8.12E-03	7.48E-03	6.67E-03	0.00E+00	4.08E-03	6.96E-03	1.11E-03	2.44E-03	potential residence	0.01	2022
564950_4183750	564950	4183750	7.79E-03	7.18E-03	6.40E-03	0.00E+00	3.93E-03	6.70E-03	1.07E-03	2.35E-03	potential residence	0.01	2022
564370_4183770	564370	4183770	2.12E-03	1.95E-03	1.73E-03	0.00E+00	2.82E-03	4.81E-03	7.70E-04	1.69E-03	potential residence	0.00	2027
564390_4183770	564390	4183770	2.29E-03	2.11E-03	1.88E-03	0.00E+00	3.02E-03	5.16E-03	8.25E-04	1.81E-03	potential residence	0.01	2027
564410_4183770	564410	4183770	2.49E-03	2.29E-03	2.04E-03	0.00E+00	3.22E-03	5.50E-03	8.80E-04	1.93E-03	potential residence	0.01	2027
564430_4183770	564430	4183770	2.71E-03	2.49E-03	2.22E-03	0.00E+00	3.39E-03	5.79E-03	9.26E-04	2.03E-03	potential residence	0.01	2027
564450_4183770	564450	4183770	2.96E-03	2.73E-03	2.43E-03	0.00E+00	3.55E-03	6.06E-03	9.69E-04	2.13E-03	potential residence	0.01	2027
564470_4183770	564470	4183770	3.23E-03	2.97E-03	2.65E-03	0.00E+00	3.67E-03	6.26E-03	1.00E-03	2.20E-03	potential residence	0.01	2027
564490_4183770	564490	4183770	3.54E-03	3.26E-03	2.90E-03	0.00E+00	3.80E-03	6.49E-03	1.04E-03	2.28E-03	potential residence	0.01	2027
564510_4183770	564510	4183770	3.89E-03	3.58E-03	3.19E-03	0.00E+00	3.95E-03	6.74E-03	1.08E-03	2.36E-03	potential residence	0.01	2027
564530_4183770	564530	4183770	4.23E-03	3.90E-03	3.47E-03	0.00E+00	4.07E-03	6.94E-03	1.11E-03	2.44E-03	potential residence	0.01	2027
564550_4183770	564550	4183770	4.57E-03	4.21E-03	3.75E-03	0.00E+00	4.15E-03	7.08E-03	1.13E-03	2.49E-03	potential residence	0.01	2027
564570_4183770	564570	4183770	4.93E-03	4.54E-03	4.05E-03	0.00E+00	4.23E-03	7.22E-03	1.16E-03	2.53E-03	potential residence	0.01	2027
564590_4183770	564590	4183770	5.25E-03	4.84E-03	4.31E-03	0.00E+00	4.27E-03	7.29E-03	1.17E-03	2.56E-03	potential residence	0.01	2027
564610_4183770	564610	4183770	5.52E-03	5.09E-03	4.53E-03	0.00E+00	4.29E-03	7.32E-03	1.17E-03	2.57E-03	potential residence	0.01	2027
564630_4183770	564630	4183770	5.77E-03	5.31E-03	4.73E-03	0.00E+00	4.32E-03	7.38E-03	1.18E-03	2.59E-03	potential residence	0.01	2027
564650_4183770	564650	4183770	6.04E-03	5.57E-03	4.96E-03	0.00E+00	4.39E-03	7.50E-03	1.20E-03	2.63E-03	potential residence	0.01	2027
564670_4183770	564670	4183770	6.25E-03	5.76E-03	5.13E-03	0.00E+00	4.42E-03	7.54E-03	1.21E-03	2.65E-03	potential residence	0.01	2027
564690_4183770	564690	4183770	6.44E-03	5.93E-03	5.28E-03	0.00E+00	4.43E-03	7.56E-03	1.21E-03	2.65E-03	potential residence	0.01	2027
564710_4183770	564710	4183770	6.62E-03	6.10E-03	5.44E-03	0.00E+00	4.54E-03	7.75E-03	1.24E-03	2.72E-03	potential residence	0.01	2027
564730_4183770	564730	4183770	6.77E-03	6.24E-03	5.56E-03	0.00E+00	4.52E-03	7.71E-03	1.23E-03	2.71E-03	potential residence	0.01	2027
564750_4183770	564750	4183770	7.16E-03	6.60E-03	5.88E-03	0.00E+00	4.46E-03	7.62E-03	1.22E-03	2.67E-03	potential residence	0.01	2027
564770_4183770	564770	4183770	7.22E-03	6.66E-03	5.93E-03	0.00E+00	4.38E-03	7.48E-03	1.20E-03	2.63E-03	potential residence	0.01	2027
564790_4183770	564790	4183770	7.27E-03	6.70E-03	5.97E-03	0.00E+00	4.28E-03	7.31E-03	1.17E-03	2.57E-03	potential residence	0.01	2027
564810_4183770	564810	4183770	7.32E-03	6.74E-03	6.01E-03	0.00E+00	4.17E-03	7.12E-03	1.14E-03	2.50E-03	potential residence	0.01	2022
564830_4183770	564830	4183770	7.36E-03	6.78E-03	6.04E-03	0.00E+00	4.07E-03	6.95E-03	1.11E-03	2.44E-03	potential residence	0.01	2022
564850_4183770	564850	4183770	7.42E-03	6.84E-03	6.09E-03	0.00E+00	3.99E-03	6.81E-03	1.09E-03	2.39E-03	potential residence	0.01	2022
564870_4183770	564870	4183770	7.47E-03	6.88E-03	6.13E-03	0.00E+00	3.92E-03	6.69E-03	1.07E-03	2.35E-03	potential residence	0.01	2022
564890_4183770	564890	4183770	7.33E-03	6.76E-03	6.02E-03	0.00E+00	3.78E-03	6.46E-03	1.03E-03	2.27E-03	potential residence	0.01	2022
564910_4183770	564910	4183770	7.11E-03	6.55E-03	5.83E-03	0.00E+00	3.65E-03	6.24E-03	9.98E-04	2.19E-03	potential residence	0.01	2022
564930_4183770	564930	4183770	6.87E-03	6.34E-03	5.64E-03	0.00E+00	3.54E-03	6.04E-03	9.67E-04	2.12E-03	potential residence	0.01	2022
564410_4183790	564410	4183790	2.41E-03	2.22E-03	1.98E-03	0.00E+00	2.91E-03	4.97E-03	7.95E-04	1.74E-03	potential residence	0.00	2027
564430_4183790	564430	4183790	2.60E-03	2.40E-03	2.13E-03	0.00E+00	3.02E-03	5.15E-03	8.24E-04	1.81E-03	potential residence	0.01	2027
564450_4183790	564450	4183790	2.82E-03	2.60E-03	2.32E-03	0.00E+00	3.12E-03	5.33E-03	8.53E-04	1.87E-03	potential residence	0.01	2027
564470_4183790	564470	4183790	3.07E-03	2.83E-03	2.52E-03	0.00E+00	3.23E-03	5.51E-03	8.81E-04	1.93E-03	potential residence	0.01	2027
564490_4183790	564490	4183790	3.32E-03	3.06E-03	2.73E-03	0.00E+00	3.31E-03	5.65E-03	9.04E-04	1.98E-03	potential residence	0.01	2027
564510_4183790	564510	4183790	3.61E-03	3.33E-03	2.97E-03	0.00E+00	3.43E-03	5.85E-03	9.36E-04	2.05E-03	potential residence	0.01	2027
564530_4183790	564530	4183790	3.89E-03	3.58E-03	3.19E-03	0.00E+00	3.52E-03	6.00E-03	9.60E-04	2.11E-03	potential residence	0.01	2027
564550_4183790	564550	4183790	4.16E-03	3.84E-03	3.42E-03	0.00E+00	3.60E-03	6.14E-03	9.83E-04	2.16E-03	potential residence	0.01	2027
564570_4183790	564570	4183790	4.40E-03	4.06E-03	3.61E-03	0.00E+00	3.63E-03	6.20E-03	9.92E-04	2.18E-03	potential residence	0.01	2027
564590_4183790	564590	4183790	4.61E-03	4.25E-03	3.79E-03	0.00E+00	3.64E-03	6.22E-03	9.95E-04	2.18E-03	potential residence	0.01	2027
564610_4183790	564610	4183790	4.79E-03	4.41E-03	3.93E-03	0.00E+00	3.65E-03	6.22E-03	9.96E-04	2.18E-03	potential residence	0.01	2027
564630_4183790	564630	4183790	4.97E-03	4.58E-03	4.08E-03	0.00E+00	3.68E-03	6.28E-03	1.00E-03	2.20E-03	potential residence	0.01	2027
564650_4183790	564650	4183790	5.20E-03	4.79E-03	4.27E-03	0.00E+00	3.75E-03	6.40E-03	1.02E-03	2.25E-03	potential residence	0.01	2027
564670_4183790	564670	4183790	5.39E-03	4.96E-03	4.42E-03	0.00E+00	3.89E-03	6.65E-03	1.06E-03	2.33E-03	potential residence	0.01	2027
564690_4183790	564690	4183790	5.51E-03	5.08E-03	4.52E-03	0.00E+00	3.81E-03	6.50E-03	1.04E-03	2.28E-03	potential residence	0.01	2027
564710_4183790	564710	4183790	5.97E-03	5.50E-03	4.90E-03	0.00E+00	3.95E-03	6.74E-03	1.08E-03	2.37E-03	potential residence	0.01	2027
564730_4183790	564730	4183790	6.26E-03	5.77E-03	5.14E-03	0.00E+00	4.05E-03	6.91E-03	1.11E-03	2.42E-03	potential residence	0.01	2027
564750_4183790	564750	4183790	6.07E-03	5.60E-03	4.99E-03	0.00E+00	3.88E-03	6.63E-03	1.06E-03	2.33E-03	potential residence	0.01	2027
564770_4183790	564770	4183790	6.07E-03	5.59E-03	4.98E-03	0.00E+00	3.80E-03	6.49E-03	1.04E-03	2.28E-03	potential residence	0.01	2027
564790_4183790	564790	4183790	6.11E-03	5.63E-03	5.01E-03	0.00E+00	3.73E-03	6.37E-03	1.02E-03	2.24E-03	potential residence	0.01	2027
564810_4183790	564810	4183790	6.16E-03	5.68E-03	5.06E-03	0.00E+00	3.66E-03	6.24E-03	9.99E-04	2.19E-03	potential residence	0.01	2027
564830_4183790	564830	4183790	6.20E-03	5.71E-03	5.09E-03	0.00E+00	3.57E-03	6.10E-03	9.76E-04	2.14E-03	potential residence	0.01	2022
564850_4183790	564850	4183790	6.29E-03	5.80E-03	5.17E-03	0.00E+00	3.52E-03	6.01E-03	9.62E-04	2.11E-03	potential residence	0.01	2022
564870_4183790	564870	4183790	6.27E-03	5.78E-03	5.15E-03	0.00E+00	3.40E-03	5.81E-03	9.30E-04	2.04E-03	potential residence	0.01	2022
564890_4183790	564890	4183790	6.18E-03	5.69E-03	5.07E-03	0.00E+00	3.31E-03	5.65E-03	9.04E-04	1.98E-03	potential residence	0.01	2022
564910_4183790	564910	4183790	6.06E-03	5.59E-03	4.98E-03	0.00E+00	3.22E-03	5.50E-03	8.80E-04	1.93E-03	potential residence	0.01	2022
564930_4183790	564930	4183790	5.94E-03	5.47E-03	4.87E-03	0.00E+00	3.15E-03	5.38E-03	8.60E-04	1.89E-03	potential residence	0.01	2022
564450_4183810	564450	4183810	2.69E-03	2.48E-03	2.21E-03	0.00E+00	2.77E-03	4.73E-03	7.57E-04	1.66E-03	potential residence	0.00	2027
564470_4183810	564470	4183810	2.91E-03	2.68E-03	2.39E-03	0.00E+00	2.85E-03	4.87E-03	7.79E-04	1.71E-03	potential residence	0.00	2027
564490_4183810	564490	4183810	3.13E-03	2.88E-03	2.57E-03	0.00E+00	2.93E-03	5.00E-03	8.00E-04	1.75E-03	potential residence	0.00	2027
564510_4183810	564510	4183810	3.35E-03	3.09E-03	2.75E-03	0.00E+00	3.01E-03	5.14E-03	8.22E-04	1.80E-03	School	0.01	2027
564530_4183810	564530	4183810	3.57E-03	3.29E-03	2.93E-03	0.00E+00	3.09E-03	5.27E-03	8.44E-04	1.85E-03	School	0.01	2027
564550_4183810	564550	4183810	3.77E-03	3.48E-03	3.10E-03	0.00E+00	3.15E-03	5.37E-03	8.59E-04	1.88E-03	potential residence	0.01	2027
564570_4183810	564570	4183810	3.94E-03	3.63E-03	3.23E-03	0.00E+00	3.16E-03	5.40E-03	8.63E-04	1.89E-03	potential residence	0.01	2027
564590_4183810	564590	4183810	4.09E-03	3.77E-03	3.36E-03	0.00E+00	3.17E-03	5.41E-03	8.65E-04	1.90E-03	potential residence	0.01	2027
564610_4183810	564610	4183810	4.23E-03	3.90E-03	3.47E-03	0.00E+00	3.18E-03	5.42E-03	8.68E-04	1.90E-03	potential residence	0.01	2027
564630_4183810	564630	4183810	4.36E-03	4.02E-03	3.58E-03	0.00E+00	3.19E-03	5.45E-03	8.72E-04	1.91E-03	potential residence	0.01	2027
564650_4183810	564650	4183810	4.53E-03	4.17E-03	3.71E-03	0.00E+00	3.24E-03	5.53E-03	8.85E-04	1.94E-03	potential residence	0.01	2027
564670_4183810	564670	4183810	4.68E-03	4.31E-03	3.84E-03	0.00E+00	3.37E-03	5.75E-03	9.21E-04	2.02E-03	potential residence	0.01	2027
564690_4183810	564690	4183810	4.81E-03	4.44E-03	3.95E-03	0.00E+00	3.40E-03	5.80E-03	9.28E-04	2.04E-03	potential residence	0.01	2027
564710_4183810	564710	4183810	5.11E-03	4.71E-03	4.20E-03	0.00E+00	3.42E-03	5.83E-03	9.33E-04	2.05E-03	potential residence	0.01	2027
564730_4183810	564730	4183810	4.90E-03	4.52E-03	4.03E-03	0.00E+00	3.39E-03	5.78E-03	9.25E-04	2.03E-03	potential residence	0.01	2027
564750_4183810	564750	4183810	4.94E-03	4.55E-03	4.06E-03	0.00E+00	3.36E-03	5.74E-03	9.19E-04	2.02E-03	potential residence	0.01	2027
564770_4183810	564770	4183810	5.18E-03	4.77E-03	4.25E-03	0.00E+00	3.33E-03	5.69E-03	9.10E-04	2.00E-03	potential residence	0.01	2027
564790_4183810	564790	4183810	5.22E-03	4.81E-03	4.28E-03	0.00E+00	3.28E-03	5.61E-03	8.97E-04	1.97E-03	potential residence	0.01	2027
564810_4183810	564810	4183810	5.26E-03	4.84E-03	4.31E-03	0.00E+00	3.22E-03	5.50E-03	8.81E-04	1.93E-03	potential residence	0.01	2027
564830_4183810	564830	4183810	5.29E-03	4.88E-03	4.34E-03	0.00E+00	3.16E-03	5.39E-03	8.63E-04	1.89E-03	potential residence	0.01	2027
564850_4183810	564850	4183810	5.32E-03	4.90E-03	4.37E-03	0.00E+00	3.09E-03	5.28E-03	8.45E-04	1.85E-03	potential residence	0.01	2022
564870_4183810	564870	4183810	5.38E-03	4.95E-03	4.41E-03	0.00E+00	3.05E-03	5.21E-03	8.34E-04	1.83E-03	potential residence	0.01	2022
564890_4183810	564890	4183810	5.31E-03	4.89E-03	4.36E-03	0.00E+00	2.97E-03	5.07E-03	8.11E-04	1.78E-03	potential residence	0.01	2022
564910_4183810	564910	4183810	5.24E-03	4.83E-03	4.30E-03	0.00E+00	2.90E-03	4.94E-03	7.91E-04	1.73E-03	potential residence	0.01	2022
564930_4183810	564930	4183810	5.14E-03	4.74E-03	4.22E-03	0.00E+00	2.81E-03	4.80E-03	7.69E-04	1.69E-03	potential residence	0.01	2022
564470_4183830	564470	4183830	2.74E-03	2.52E-03	2.25E-03	0.00E+00	2.54E-03	4.33E-03	6.94E-04	1.52E-03	School	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated								Receptor Type	$PM_{2.5}$ Concentration	
			2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564490_4183830	564490	4183830	2.91E-03	2.68E-03	2.39E-03	0.00E+00	2.59E-03	4.42E-03	7.07E-04	1.55E-03	School	0.00	2027
564510_4183830	564510	4183830	3.08E-03	2.84E-03	2.53E-03	0.00E+00	2.65E-03	4.52E-03	7.24E-04	1.59E-03	School	0.00	2027
564530_4183830	564530	4183830	3.24E-03	2.99E-03	2.66E-03	0.00E+00	2.71E-03	4.63E-03	7.41E-04	1.62E-03	School	0.00	2027
564550_4183830	564550	4183830	3.41E-03	3.14E-03	2.80E-03	0.00E+00	2.77E-03	4.73E-03	7.56E-04	1.66E-03	School	0.00	2027
564570_4183830	564570	4183830	3.53E-03	3.26E-03	2.90E-03	0.00E+00	2.79E-03	4.76E-03	7.61E-04	1.67E-03	potential residence	0.00	2027
564590_4183830	564590	4183830	3.64E-03	3.35E-03	2.99E-03	0.00E+00	2.79E-03	4.76E-03	7.61E-04	1.67E-03	potential residence	0.00	2027
564610_4183830	564610	4183830	3.75E-03	3.45E-03	3.08E-03	0.00E+00	2.79E-03	4.76E-03	7.62E-04	1.67E-03	potential residence	0.00	2027
564630_4183830	564630	4183830	3.86E-03	3.56E-03	3.17E-03	0.00E+00	2.81E-03	4.79E-03	7.67E-04	1.68E-03	potential residence	0.00	2027
564650_4183830	564650	4183830	3.99E-03	3.67E-03	3.27E-03	0.00E+00	2.84E-03	4.84E-03	7.75E-04	1.70E-03	potential residence	0.00	2027
564670_4183830	564670	4183830	4.11E-03	3.78E-03	3.37E-03	0.00E+00	2.95E-03	5.04E-03	8.06E-04	1.77E-03	potential residence	0.01	2027
564690_4183830	564690	4183830	4.18E-03	3.85E-03	3.43E-03	0.00E+00	2.96E-03	5.06E-03	8.09E-04	1.77E-03	potential residence	0.01	2027
564710_4183830	564710	4183830	4.22E-03	3.89E-03	3.46E-03	0.00E+00	2.97E-03	5.07E-03	8.11E-04	1.78E-03	potential residence	0.01	2027
564730_4183830	564730	4183830	4.25E-03	3.91E-03	3.49E-03	0.00E+00	2.97E-03	5.07E-03	8.11E-04	1.78E-03	potential residence	0.01	2027
564750_4183830	564750	4183830	4.45E-03	4.10E-03	3.66E-03	0.00E+00	2.96E-03	5.06E-03	8.09E-04	1.77E-03	potential residence	0.01	2027
564770_4183830	564770	4183830	4.47E-03	4.12E-03	3.67E-03	0.00E+00	2.94E-03	5.02E-03	8.04E-04	1.76E-03	potential residence	0.01	2027
564790_4183830	564790	4183830	4.51E-03	4.15E-03	3.70E-03	0.00E+00	2.91E-03	4.97E-03	7.95E-04	1.74E-03	potential residence	0.00	2027
564810_4183830	564810	4183830	4.54E-03	4.18E-03	3.72E-03	0.00E+00	2.86E-03	4.89E-03	7.82E-04	1.71E-03	potential residence	0.00	2027
564830_4183830	564830	4183830	4.58E-03	4.22E-03	3.76E-03	0.00E+00	2.82E-03	4.81E-03	7.70E-04	1.69E-03	potential residence	0.00	2027
564850_4183830	564850	4183830	4.61E-03	4.25E-03	3.79E-03	0.00E+00	2.77E-03	4.72E-03	7.56E-04	1.66E-03	potential residence	0.00	2027
564870_4183830	564870	4183830	4.62E-03	4.26E-03	3.79E-03	0.00E+00	2.71E-03	4.63E-03	7.41E-04	1.62E-03	potential residence	0.00	2027
564890_4183830	564890	4183830	4.61E-03	4.25E-03	3.79E-03	0.00E+00	2.66E-03	4.54E-03	7.26E-04	1.59E-03	potential residence	0.00	2022
564910_4183830	564910	4183830	4.55E-03	4.19E-03	3.73E-03	0.00E+00	2.59E-03	4.42E-03	7.07E-04	1.55E-03	potential residence	0.00	2022
564930_4183830	564930	4183830	4.51E-03	4.16E-03	3.70E-03	0.00E+00	2.53E-03	4.31E-03	6.90E-04	1.51E-03	potential residence	0.00	2022
564510_4183850	564510	4183850	2.84E-03	2.62E-03	2.33E-03	0.00E+00	2.37E-03	4.05E-03	6.48E-04	1.42E-03	School	0.00	2027
564530_4183850	564530	4183850	2.95E-03	2.72E-03	2.42E-03	0.00E+00	2.40E-03	4.10E-03	6.57E-04	1.44E-03	School	0.00	2027
564550_4183850	564550	4183850	3.08E-03	2.84E-03	2.53E-03	0.00E+00	2.46E-03	4.20E-03	6.72E-04	1.47E-03	School	0.00	2027
564570_4183850	564570	4183850	3.18E-03	2.93E-03	2.61E-03	0.00E+00	2.47E-03	4.22E-03	6.76E-04	1.48E-03	potential residence	0.00	2027
564590_4183850	564590	4183850	3.26E-03	3.00E-03	2.67E-03	0.00E+00	2.47E-03	4.22E-03	6.75E-04	1.48E-03	potential residence	0.00	2027
564610_4183850	564610	4183850	3.34E-03	3.07E-03	2.74E-03	0.00E+00	2.47E-03	4.21E-03	6.74E-04	1.48E-03	potential residence	0.00	2027
564630_4183850	564630	4183850	3.43E-03	3.16E-03	2.81E-03	0.00E+00	2.48E-03	4.23E-03	6.76E-04	1.48E-03	potential residence	0.00	2027
564650_4183850	564650	4183850	3.52E-03	3.24E-03	2.89E-03	0.00E+00	2.49E-03	4.26E-03	6.81E-04	1.49E-03	potential residence	0.00	2027
564670_4183850	564670	4183850	3.61E-03	3.33E-03	2.97E-03	0.00E+00	2.59E-03	4.43E-03	7.09E-04	1.55E-03	potential residence	0.00	2027
564690_4183850	564690	4183850	3.69E-03	3.40E-03	3.03E-03	0.00E+00	2.62E-03	4.47E-03	7.15E-04	1.57E-03	potential residence	0.00	2027
564710_4183850	564710	4183850	3.71E-03	3.42E-03	3.05E-03	0.00E+00	2.62E-03	4.48E-03	7.16E-04	1.57E-03	potential residence	0.00	2027
564730_4183850	564730	4183850	3.73E-03	3.44E-03	3.06E-03	0.00E+00	2.63E-03	4.49E-03	7.18E-04	1.58E-03	potential residence	0.00	2027
564750_4183850	564750	4183850	3.90E-03	3.59E-03	3.20E-03	0.00E+00	2.63E-03	4.49E-03	7.18E-04	1.58E-03	potential residence	0.00	2027
564770_4183850	564770	4183850	3.91E-03	3.60E-03	3.21E-03	0.00E+00	2.62E-03	4.47E-03	7.15E-04	1.57E-03	potential residence	0.00	2027
564790_4183850	564790	4183850	3.93E-03	3.62E-03	3.23E-03	0.00E+00	2.59E-03	4.43E-03	7.08E-04	1.55E-03	potential residence	0.00	2027
564810_4183850	564810	4183850	3.96E-03	3.64E-03	3.25E-03	0.00E+00	2.56E-03	4.37E-03	6.99E-04	1.53E-03	potential residence	0.00	2027
564830_4183850	564830	4183850	3.99E-03	3.68E-03	3.28E-03	0.00E+00	2.52E-03	4.30E-03	6.88E-04	1.51E-03	potential residence	0.00	2027
564850_4183850	564850	4183850	4.02E-03	3.70E-03	3.30E-03	0.00E+00	2.48E-03	4.23E-03	6.77E-04	1.49E-03	potential residence	0.00	2027
564870_4183850	564870	4183850	4.04E-03	3.72E-03	3.32E-03	0.00E+00	2.44E-03	4.16E-03	6.66E-04	1.46E-03	potential residence	0.00	2027
564890_4183850	564890	4183850	4.04E-03	3.72E-03	3.32E-03	0.00E+00	2.39E-03	4.09E-03	6.54E-04	1.43E-03	potential residence	0.00	2027
564910_4183850	564910	4183850	4.01E-03	3.70E-03	3.29E-03	0.00E+00	2.34E-03	4.00E-03	6.40E-04	1.40E-03	potential residence	0.00	2022
564550_4183870	564550	4183870	2.79E-03	2.57E-03	2.29E-03	0.00E+00	2.20E-03	3.76E-03	6.02E-04	1.32E-03	School	0.00	2027
564570_4183870	564570	4183870	2.86E-03	2.63E-03	2.34E-03	0.00E+00	2.20E-03	3.76E-03	6.02E-04	1.32E-03	potential residence	0.00	2027
564590_4183870	564590	4183870	2.92E-03	2.69E-03	2.40E-03	0.00E+00	2.20E-03	3.75E-03	6.01E-04	1.32E-03	potential residence	0.00	2027
564610_4183870	564610	4183870	2.98E-03	2.75E-03	2.45E-03	0.00E+00	2.19E-03	3.74E-03	5.98E-04	1.31E-03	potential residence	0.00	2027
564630_4183870	564630	4183870	3.06E-03	2.82E-03	2.51E-03	0.00E+00	2.19E-03	3.75E-03	5.99E-04	1.31E-03	potential residence	0.00	2027
564650_4183870	564650	4183870	3.13E-03	2.88E-03	2.57E-03	0.00E+00	2.21E-03	3.76E-03	6.02E-04	1.32E-03	potential residence	0.00	2027
564670_4183870	564670	4183870	3.21E-03	2.96E-03	2.63E-03	0.00E+00	2.24E-03	3.82E-03	6.11E-04	1.34E-03	potential residence	0.00	2027
564690_4183870	564690	4183870	3.28E-03	3.02E-03	2.69E-03	0.00E+00	2.33E-03	3.97E-03	6.35E-04	1.39E-03	potential residence	0.00	2027
564710_4183870	564710	4183870	3.30E-03	3.04E-03	2.71E-03	0.00E+00	2.34E-03	3.99E-03	6.39E-04	1.40E-03	potential residence	0.00	2027
564730_4183870	564730	4183870	3.31E-03	3.05E-03	2.71E-03	0.00E+00	2.35E-03	4.00E-03	6.41E-04	1.41E-03	potential residence	0.00	2027
564750_4183870	564750	4183870	3.44E-03	3.17E-03	2.82E-03	0.00E+00	2.35E-03	4.01E-03	6.41E-04	1.41E-03	potential residence	0.00	2027
564770_4183870	564770	4183870	3.44E-03	3.17E-03	2.82E-03	0.00E+00	2.34E-03	3.99E-03	6.39E-04	1.40E-03	potential residence	0.00	2027
564790_4183870	564790	4183870	3.45E-03	3.18E-03	2.83E-03	0.00E+00	2.32E-03	3.96E-03	6.34E-04	1.39E-03	potential residence	0.00	2027
564810_4183870	564810	4183870	3.49E-03	3.22E-03	2.86E-03	0.00E+00	2.30E-03	3.93E-03	6.29E-04	1.38E-03	potential residence	0.00	2027
564830_4183870	564830	4183870	3.51E-03	3.24E-03	2.89E-03	0.00E+00	2.27E-03	3.88E-03	6.20E-04	1.36E-03	potential residence	0.00	2027
564850_4183870	564850	4183870	3.54E-03	3.26E-03	2.91E-03	0.00E+00	2.24E-03	3.82E-03	6.11E-04	1.34E-03	potential residence	0.00	2027
564870_4183870	564870	4183870	3.56E-03	3.29E-03	2.93E-03	0.00E+00	2.20E-03	3.76E-03	6.02E-04	1.32E-03	potential residence	0.00	2027
564590_4183890	564590	4183890	2.63E-03	2.43E-03	2.16E-03	0.00E+00	1.97E-03	3.37E-03	5.39E-04	1.18E-03	potential residence	0.00	2027
564610_4183890	564610	4183890	2.69E-03	2.48E-03	2.21E-03	0.00E+00	1.97E-03	3.36E-03	5.38E-04	1.18E-03	potential residence	0.00	2027
564630_4183890	564630	4183890	2.76E-03	2.54E-03	2.26E-03	0.00E+00	1.97E-03	3.36E-03	5.38E-04	1.18E-03	potential residence	0.00	2027
564650_4183890	564650	4183890	2.84E-03	2.62E-03	2.33E-03	0.00E+00	2.06E-03	3.51E-03	5.62E-04	1.23E-03	potential residence	0.00	2027
564670_4183890	564670	4183890	2.88E-03	2.66E-03	2.37E-03	0.00E+00	2.06E-03	3.52E-03	5.63E-04	1.23E-03	potential residence	0.00	2027
564690_4183890	564690	4183890	2.93E-03	2.70E-03	2.41E-03	0.00E+00	2.08E-03	3.55E-03	5.68E-04	1.25E-03	potential residence	0.00	2027
564710_4183890	564710	4183890	2.95E-03	2.71E-03	2.42E-03	0.00E+00	2.09E-03	3.57E-03	5.72E-04	1.25E-03	potential residence	0.00	2027
564730_4183890	564730	4183890	2.94E-03	2.71E-03	2.41E-03	0.00E+00	2.10E-03	3.59E-03	5.74E-04	1.26E-03	potential residence	0.00	2027
564750_4183890	564750	4183890	3.05E-03	2.81E-03	2.50E-03	0.00E+00	2.10E-03	3.59E-03	5.75E-04	1.26E-03	potential residence	0.00	2027
564770_4183890	564770	4183890	3.05E-03	2.81E-03	2.50E-03	0.00E+00	2.10E-03	3.59E-03	5.74E-04	1.26E-03	potential residence	0.00	2027
564790_4183890	564790	4183890	3.07E-03	2.83E-03	2.52E-03	0.00E+00	2.10E-03	3.58E-03	5.72E-04	1.26E-03	potential residence	0.00	2027
564810_4183890	564810	4183890	3.10E-03	2.85E-03	2.54E-03	0.00E+00	2.08E-03	3.55E-03	5.69E-04	1.25E-03	potential residence	0.00	2027
564830_4183890	564830	4183890	3.12E-03	2.88E-03	2.56E-03	0.00E+00	2.06E-03	3.51E-03	5.62E-04	1.23E-03	potential residence	0.00	2027
564850_4183890	564850	4183890	3.15E-03	2.90E-03	2.58E-03	0.00E+00	2.03E-03	3.46E-03	5.54E-04	1.22E-03	potential residence	0.00	2027
564630_4183910	564630	4183910	2.50E-03	2.31E-03	2.05E-03	0.00E+00	1.78E-03	3.04E-03	4.86E-04	1.07E-03	potential residence	0.00	2027
564650_4183910	564650	4183910	2.58E-03	2.37E-03	2.11E-03	0.00E+00	1.86E-03	3.17E-03	5.07E-04	1.11E-03	potential residence	0.00	2027
564670_4183910	564670	4183910	2.61E-03	2.40E-03	2.14E-03	0.00E+00	1.86E-03	3.17E-03	5.07E-04	1.11E-03	potential residence	0.00	2027
564690_4183910	564690	4183910	2.63E-03	2.43E-03	2.16E-03	0.00E+00	1.87E-03	3.19E-03	5.10E-04	1.12E-03	potential residence	0.00	2027
564710_4183910	564710	4183910	2.64E-03	2.44E-03	2.17E-03	0.00E+00	1.88E-03	3.21E-03	5.14E-04	1.13E-03	potential residence	0.00	2027
564730_4183910	564730	4183910	2.63E-03	2.43E-03	2.16E-03	0.00E+00	1.89E-03	3.23E-03	5.17E-04	1.13E-03	potential residence	0.00	2027
564750_4183910	564750	4183910	2.73E-03	2.51E-03	2.24E-03	0.00E+00	1.90E-03	3.24E-03	5.18E-04	1.14E-03	potential residence	0.00	2027
564770_4183910	564770	4183910	2.73E-03	2.52E-03	2.24E-03	0.00E+00	1.90E-03	3.25E-03	5.19E-04	1.14E-03	potential residence	0.00	2027
564790_4183910	564790	4183910	2.74E-03	2.53E-03	2.25E-03	0.00E+00	1.90E-03	3.24E-03	5.19E-04	1.14E-03	potential residence	0.00	2027
564810_4183910	564810	4183910	2.76E-03	2.55E-03	2.27E-03	0.00E+00	1.89E-03	3.22E-03	5.15E-04	1.13E-03	potential residence	0.00	2027
564610_4183910	564610	4183910	2.44E-03	2.25E-03	2.00E-03	0.00E+00	1.78E-03	3.03E-03	4.86E-04	1.07E-03	potential residence	0.00	2027
564590_4183910	564590	4183910	2.39E-03	2.20E-03	1.96E-03	0.00E+00	1.78E-03	3.05E-03	4.87E-04	1.07E-03	potential residence	0.00	2027
564570_4183910	564570	4183910	2.34E-03	2.16E-03	1.92E-03	0.00E+00	1.79E-03	3.05E-03	4.88E-04	1.07E-03	potential residence	0.00	2027
564550_4183910	564550	4183910	2.33E-03	2.15E-03	1.91E-03	0.00E+00	1.88E-03	3.21E-03	5.13E-04	1.12E-03	potential residence	0.00	2027
564530_4183910	564530	4183910	2.28E-03	2.10E-03	1.87E-03	0.00E+00	1.80E-03	3.07E-03	4.91E-04	1.08E-03	potential residence	0.00	2027
564510_4183910	564510	4183910	2.21E-03	2.04E-03	1.82E-03	0.00E+00	1.76E-03	3.00E-03	4.80E-04	1.05E-03	potential residence	0.00	2027
564490_4183910	564490	4183910	2.15E-03	1.98E-03	1.76E-03	0.00E+00	1.72E-03	2.94E-03	4.70E-04	1.03E-03	potential residence	0.00	2027
564470_4183910	564470	4183910	2.08E-03	1.92E-03	1.71E-03	0.00E+00	1.68E-03	2.87E-03	4.60E-04	1.01E-03	School	0.00	2027
564450_4183910	564450	4183910	2.00E-03	1.84E-03	1.64E-03	0.00E+00	1.65E-03	2.82E-03	4.52E-04	9.90E-04	School	0.00	2027
564430_4183910	564430	4183910	1.91E-03	1.76E-03	1.57E-03	0.00E+00	1.62E-03	2.76E-03	4.42E-04	9.70E-04	potential residence	0.00	2027
564410_4183910	564410	4183910	1.83E-03	1.68E-03	1.50E-03	0.00E+00	1.60E-03	2.73E-03	4.37E-04	9.58E-04	potential residence	0.00	2027
564390_4183910	564390	4183910	1.74E-03	1.60E-03	1.43E-03	0.00E+00	1.58E-03	2.69E-03	4.31E-04	9.44E-04	potential residence	0.00	2027
564370_4183910	564370	4183910	1.65E-03	1.52E-03	1.35E-03	0.00E+00	1.55E-03	2.65E-03	4.24E-04	9.29E-04	potential residence	0.00	2027
564350_4183910	564350	4183910	1.57E-03	1.45E-03	1.29E-03	0.00E+00	1.53E-03	2.60E-03	4.17E-04	9.14E-04	potential residence	0.00	2027
564570_4183890	564570	4183890	2.59E-03	2.38E-03	2.12E-03	0.00E+00	1.98E-03	3.39E-03	5.42E-04	1.19E-03	potential residence	0.00	2027
564550_4183890	564550	4183890	2.53E-03	2.33E-03	2.08E-03	0.00E+00	1.98E-03	3.38E-03	5.40E-04	1.18E-03	potential residence	0.00	2027
564530_4183890	564530	4183890	2.48E-03	2.28E-03	2.03E-03	0.00E+00	1.96E-03	3.35E-03	5.37E-04	1.18E-03	potential residence	0.00	2027
564510_4183890	564510	4183890	2.41E-03	2.22E-03	1.97E-03	0.00E+00	1.93E-03	3.29E-03	5.27E-04	1.16E-03	School	0.00	2027
564490_4183890	564490	4183890	2.32E-03	2.13E-03	1.90E-03	0.00E+00	1.88E-03	3.21E-03	5.14E-04	1.13E-03	School	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Unmitigated $PM_{2.5}$ Annual Average Concent

Lookup	X (UTM)	Y (UTM	Unmitigated								Receptor Type	$PM_{2.5}$ Concentration	
			2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564470_4183890	564470	4183890	2.23E-03	2.05E-03	1.83E-03	0.00E+00	1.85E-03	3.15E-03	5.04E-04	1.11E-03	School	0.00	2027
564450_4183890	564450	4183890	2.14E-03	1.97E-03	1.76E-03	0.00E+00	1.82E-03	3.10E-03	4.96E-04	1.09E-03	School	0.00	2027
564430_4183890	564430	4183890	2.03E-03	1.87E-03	1.66E-03	0.00E+00	1.78E-03	3.04E-03	4.86E-04	1.07E-03	potential residence	0.00	2027
564410_4183890	564410	4183890	1.93E-03	1.77E-03	1.58E-03	0.00E+00	1.75E-03	2.99E-03	4.79E-04	1.05E-03	potential residence	0.00	2027
564390_4183890	564390	4183890	1.82E-03	1.68E-03	1.49E-03	0.00E+00	1.72E-03	2.94E-03	4.71E-04	1.03E-03	potential residence	0.00	2027
564370_4183890	564370	4183890	1.73E-03	1.59E-03	1.42E-03	0.00E+00	1.70E-03	2.90E-03	4.63E-04	1.02E-03	potential residence	0.00	2027
564350_4183890	564350	4183890	1.64E-03	1.51E-03	1.35E-03	0.00E+00	1.66E-03	2.83E-03	4.53E-04	9.94E-04	potential residence	0.00	2027
564530_4183870	564530	4183870	2.70E-03	2.49E-03	2.22E-03	0.00E+00	2.16E-03	3.69E-03	5.91E-04	1.30E-03	School	0.00	2027
564510_4183870	564510	4183870	2.60E-03	2.40E-03	2.13E-03	0.00E+00	2.12E-03	3.62E-03	5.79E-04	1.27E-03	School	0.00	2027
564490_4183870	564490	4183870	2.50E-03	2.30E-03	2.05E-03	0.00E+00	2.08E-03	3.55E-03	5.68E-04	1.25E-03	School	0.00	2027
564470_4183870	564470	4183870	2.39E-03	2.20E-03	1.96E-03	0.00E+00	2.04E-03	3.48E-03	5.57E-04	1.22E-03	School	0.00	2027
564450_4183870	564450	4183870	2.28E-03	2.10E-03	1.87E-03	0.00E+00	2.00E-03	3.42E-03	5.48E-04	1.20E-03	School	0.00	2027
564430_4183870	564430	4183870	2.15E-03	1.98E-03	1.77E-03	0.00E+00	1.97E-03	3.36E-03	5.37E-04	1.18E-03	School	0.00	2027
564410_4183870	564410	4183870	2.03E-03	1.87E-03	1.67E-03	0.00E+00	1.93E-03	3.30E-03	5.28E-04	1.16E-03	potential residence	0.00	2027
564390_4183870	564390	4183870	1.92E-03	1.77E-03	1.58E-03	0.00E+00	1.90E-03	3.24E-03	5.19E-04	1.14E-03	potential residence	0.00	2027
564370_4183870	564370	4183870	1.80E-03	1.66E-03	1.48E-03	0.00E+00	1.85E-03	3.16E-03	5.06E-04	1.11E-03	potential residence	0.00	2027
564350_4183870	564350	4183870	1.70E-03	1.56E-03	1.39E-03	0.00E+00	1.80E-03	3.06E-03	4.90E-04	1.08E-03	Daycare	0.00	2027
564330_4183870	564330	4183870	1.60E-03	1.47E-03	1.31E-03	0.00E+00	1.73E-03	2.95E-03	4.72E-04	1.04E-03	Daycare	0.00	2027
564490_4183850	564490	4183850	2.70E-03	2.49E-03	2.22E-03	0.00E+00	2.32E-03	3.95E-03	6.33E-04	1.39E-03	School	0.00	2027
564470_4183850	564470	4183850	2.56E-03	2.35E-03	2.10E-03	0.00E+00	2.26E-03	3.86E-03	6.17E-04	1.35E-03	School	0.00	2027
564450_4183850	564450	4183850	2.42E-03	2.23E-03	1.98E-03	0.00E+00	2.22E-03	3.79E-03	6.07E-04	1.33E-03	School	0.00	2027
564430_4183850	564430	4183850	2.28E-03	2.10E-03	1.87E-03	0.00E+00	2.18E-03	3.73E-03	5.97E-04	1.31E-03	School	0.00	2027
564410_4183850	564410	4183850	2.13E-03	1.96E-03	1.75E-03	0.00E+00	2.13E-03	3.64E-03	5.83E-04	1.28E-03	potential residence	0.00	2027
564390_4183850	564390	4183850	2.00E-03	1.84E-03	1.64E-03	0.00E+00	2.08E-03	3.55E-03	5.69E-04	1.25E-03	potential residence	0.00	2027
564370_4183850	564370	4183850	1.87E-03	1.72E-03	1.53E-03	0.00E+00	2.01E-03	3.44E-03	5.50E-04	1.21E-03	potential residence	0.00	2027
564350_4183850	564350	4183850	1.75E-03	1.61E-03	1.43E-03	0.00E+00	1.93E-03	3.30E-03	5.28E-04	1.16E-03	Daycare	0.00	2027
564330_4183850	564330	4183850	1.64E-03	1.51E-03	1.34E-03	0.00E+00	1.85E-03	3.16E-03	5.05E-04	1.11E-03	Daycare	0.00	2027
564310_4183850	564310	4183850	1.55E-03	1.42E-03	1.27E-03	0.00E+00	1.77E-03	3.03E-03	4.84E-04	1.06E-03	Daycare	0.00	2027
564450_4183830	564450	4183830	2.56E-03	2.36E-03	2.10E-03	0.00E+00	2.48E-03	4.23E-03	6.77E-04	1.49E-03	potential residence	0.00	2027
564430_4183830	564430	4183830	2.39E-03	2.20E-03	1.96E-03	0.00E+00	2.43E-03	4.14E-03	6.63E-04	1.45E-03	potential residence	0.00	2027
564410_4183830	564410	4183830	2.23E-03	2.05E-03	1.83E-03	0.00E+00	2.36E-03	4.03E-03	6.44E-04	1.41E-03	potential residence	0.00	2027
564390_4183830	564390	4183830	2.07E-03	1.90E-03	1.70E-03	0.00E+00	2.28E-03	3.89E-03	6.22E-04	1.36E-03	potential residence	0.00	2027
564370_4183830	564370	4183830	1.92E-03	1.77E-03	1.58E-03	0.00E+00	2.18E-03	3.73E-03	5.97E-04	1.31E-03	potential residence	0.00	2027
564350_4183830	564350	4183830	1.80E-03	1.66E-03	1.48E-03	0.00E+00	2.09E-03	3.57E-03	5.71E-04	1.25E-03	Daycare	0.00	2027
564330_4183830	564330	4183830	1.68E-03	1.54E-03	1.38E-03	0.00E+00	1.98E-03	3.38E-03	5.40E-04	1.18E-03	Daycare	0.00	2027
564310_4183830	564310	4183830	1.59E-03	1.46E-03	1.30E-03	0.00E+00	1.89E-03	3.22E-03	5.16E-04	1.13E-03	Daycare	0.00	2027
564430_4183810	564430	4183810	2.50E-03	2.30E-03	2.05E-03	0.00E+00	2.70E-03	4.62E-03	7.39E-04	1.62E-03	potential residence	0.00	2027
564410_4183810	564410	4183810	2.32E-03	2.14E-03	1.91E-03	0.00E+00	2.62E-03	4.48E-03	7.16E-04	1.57E-03	potential residence	0.00	2027
564390_4183810	564390	4183810	2.14E-03	1.97E-03	1.75E-03	0.00E+00	2.50E-03	4.26E-03	6.82E-04	1.50E-03	potential residence	0.00	2027
564370_4183810	564370	4183810	1.99E-03	1.83E-03	1.63E-03	0.00E+00	2.38E-03	4.07E-03	6.51E-04	1.43E-03	potential residence	0.00	2027
564350_4183810	564350	4183810	1.86E-03	1.71E-03	1.52E-03	0.00E+00	2.26E-03	3.86E-03	6.18E-04	1.35E-03	potential residence	0.00	2027
564330_4183810	564330	4183810	1.74E-03	1.60E-03	1.42E-03	0.00E+00	2.13E-03	3.64E-03	5.83E-04	1.28E-03	Daycare	0.00	2027
564390_4183790	564390	4183790	2.22E-03	2.05E-03	1.82E-03	0.00E+00	2.76E-03	4.71E-03	7.54E-04	1.65E-03	potential residence	0.00	2027
564370_4183790	564370	4183790	2.06E-03	1.90E-03	1.69E-03	0.00E+00	2.60E-03	4.45E-03	7.11E-04	1.56E-03	potential residence	0.00	2027
565230_4183390	565230	4183390	1.09E-02	1.00E-02	8.95E-03	0.00E+00	5.58E-03	9.52E-03	1.52E-03	3.34E-03	Daycare	0.01	2022
565250_4183390	565250	4183390	1.02E-02	9.39E-03	8.37E-03	0.00E+00	5.28E-03	9.02E-03	1.44E-03	3.16E-03	Daycare	0.01	2022
565230_4183370	565230	4183370	1.07E-02	9.86E-03	8.78E-03	0.00E+00	5.51E-03	9.41E-03	1.51E-03	3.30E-03	Daycare	0.01	2022
565250_4183370	565250	4183370	1.00E-02	9.24E-03	8.23E-03	0.00E+00	5.22E-03	8.91E-03	1.43E-03	3.13E-03	Daycare	0.01	2022
565230_4183350	565230	4183350	1.05E-02	9.66E-03	8.61E-03	0.00E+00	5.47E-03	9.33E-03	1.49E-03	3.27E-03	Daycare	0.01	2022
565250_4183350	565250	4183350	9.88E-03	9.10E-03	8.10E-03	0.00E+00	5.18E-03	8.85E-03	1.42E-03	3.11E-03	Daycare	0.01	2022

Health Risk Assessment:
Mitigated Construction HRA

All Receptors - Construction Cancer Risk

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Mitigated DPM (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	91	215	0	306	3.25E-03	1.42E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	365	0	365	3.74E-03	5.60E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	150	78	228	2.30E-03	3.30E-04	5.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	507	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	0	0	361	361	4.00E-03	5.20E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	0	365	365	6.97E-03	1.12E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	0	366	366	9.70E-04	9.00E-05	9.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	2.80E-04	4.00E-05	0.00E+00

				Total Mitigated DPM (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.12E-04	2.41E-06	1.52E-06
2023	1	1/1/2023	12/31/2023	1.08E-04	8.65E-07	5.45E-07
2024	1	1/1/2024	8/15/2024	1.06E-04	8.93E-07	5.63E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.16E-04	7.93E-07	5.00E-07
2027	2	1/1/2027	12/31/2027	2.01E-04	1.57E-06	9.87E-07
2028	2	1/1/2028	12/31/2028	2.78E-05	4.01E-07	2.53E-07
2029	2	1/1/2029	2/13/2029	6.68E-05	3.96E-07	2.50E-07

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	2<16
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572
Fraction Of Time At Home	FAH	unitless	1	1	1
Exposure Frequency	EF	days/year	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3
Inhalation Absorption Factor	A	unitless	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70

Intake Factor for Inhalation, IF (m^3/kg-day)

	Year	Equation	3rd Trimester	0<2	2<16
Phase 1 Construction	2022	DBR*FAH*EF*ED*ASF*A*CF/AT	0.012	0.088	0.000
	2023		0.000	0.149	0.000
	2024		0.000	0.061	0.005
Inactive	2025		0.000	0.000	0.033
Phase 2 Construction	2026		0.000	0.000	0.023
	2027		0.000	0.000	0.024
	2028		0.000	0.000	0.024
	2029		0.000	0.000	0.003

Risk Calculation Part 1, R1

Year		3rd Trimester	0<2	2<16
2022	IF*CPF*CF	1.36E-05	9.67E-05	0.00E+00
2023		0.00E+00	1.64E-04	0.00E+00
2024		0.00E+00	6.75E-05	5.53E-06
2025		0.00E+00	0.00E+00	3.59E-05
2026		0.00E+00	0.00E+00	2.56E-05
2027		0.00E+00	0.00E+00	2.59E-05
2028		0.00E+00	0.00E+00	2.59E-05
2029		0.00E+00	0.00E+00	3.12E-06

MAX	Cancer Risk	UTM X	UTM Y
Mitigated	2.88	564710	4183510

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

			Mitigated								Receptor Type	$\sum R1*C_{DPM}$			
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564550_4183170	564550	4183170	1.66E-04	1.55E-04	1.53E-04	0.00E+00	2.32E-04	4.00E-04	5.62E-05	1.33E-04	potential residence	2.25E-09	5.18E-08	1.90E-08	0.07
564570_4183170	564570	4183170	1.71E-04	1.59E-04	1.57E-04	0.00E+00	2.42E-04	4.18E-04	5.86E-05	1.39E-04	potential residence	2.32E-09	5.33E-08	1.98E-08	0.08
564590_4183170	564590	4183170	1.76E-04	1.64E-04	1.61E-04	0.00E+00	2.52E-04	4.35E-04	6.11E-05	1.44E-04	potential residence	2.38E-09	5.48E-08	2.06E-08	0.08
564610_4183170	564610	4183170	1.81E-04	1.68E-04	1.66E-04	0.00E+00	2.62E-04	4.53E-04	6.36E-05	1.50E-04	potential residence	2.45E-09	5.63E-08	2.15E-08	0.08
564630_4183170	564630	4183170	1.87E-04	1.74E-04	1.71E-04	0.00E+00	2.75E-04	4.75E-04	6.67E-05	1.58E-04	potential residence	2.53E-09	5.82E-08	2.25E-08	0.08
564650_4183170	564650	4183170	1.93E-04	1.80E-04	1.78E-04	0.00E+00	2.90E-04	5.00E-04	7.02E-05	1.66E-04	potential residence	2.62E-09	6.03E-08	2.36E-08	0.09
564670_4183170	564670	4183170	2.01E-04	1.87E-04	1.84E-04	0.00E+00	3.05E-04	5.26E-04	7.39E-05	1.75E-04	potential residence	2.72E-09	6.25E-08	2.49E-08	0.09
564690_4183170	564690	4183170	2.09E-04	1.94E-04	1.91E-04	0.00E+00	3.22E-04	5.55E-04	7.79E-05	1.84E-04	potential residence	2.83E-09	6.50E-08	2.62E-08	0.09
564510_4183190	564510	4183190	1.69E-04	1.58E-04	1.56E-04	0.00E+00	2.35E-04	4.06E-04	5.70E-05	1.35E-04	potential residence	2.30E-09	5.28E-08	1.93E-08	0.07
564530_4183190	564530	4183190	1.75E-04	1.63E-04	1.60E-04	0.00E+00	2.45E-04	4.22E-04	5.93E-05	1.40E-04	potential residence	2.37E-09	5.45E-08	2.00E-08	0.08
564550_4183190	564550	4183190	1.80E-04	1.68E-04	1.65E-04	0.00E+00	2.55E-04	4.39E-04	6.17E-05	1.46E-04	potential residence	2.44E-09	5.61E-08	2.08E-08	0.08
564570_4183190	564570	4183190	1.85E-04	1.73E-04	1.70E-04	0.00E+00	2.66E-04	4.59E-04	6.45E-05	1.52E-04	potential residence	2.51E-09	5.78E-08	2.18E-08	0.08
564590_4183190	564590	4183190	1.91E-04	1.78E-04	1.75E-04	0.00E+00	2.78E-04	4.80E-04	6.74E-05	1.59E-04	potential residence	2.59E-09	5.95E-08	2.27E-08	0.08
564610_4183190	564610	4183190	1.97E-04	1.83E-04	1.81E-04	0.00E+00	2.91E-04	5.03E-04	7.06E-05	1.67E-04	potential residence	2.67E-09	6.14E-08	2.38E-08	0.09
564630_4183190	564630	4183190	2.03E-04	1.89E-04	1.87E-04	0.00E+00	3.06E-04	5.28E-04	7.42E-05	1.75E-04	potential residence	2.76E-09	6.34E-08	2.50E-08	0.09
564650_4183190	564650	4183190	2.11E-04	1.96E-04	1.94E-04	0.00E+00	3.23E-04	5.57E-04	7.83E-05	1.85E-04	potential residence	2.86E-09	6.57E-08	2.63E-08	0.09
564670_4183190	564670	4183190	2.19E-04	2.04E-04	2.01E-04	0.00E+00	3.40E-04	5.87E-04	8.25E-05	1.95E-04	potential residence	2.97E-09	6.81E-08	2.77E-08	0.10
564690_4183190	564690	4183190	2.27E-04	2.11E-04	2.08E-04	0.00E+00	3.59E-04	6.20E-04	8.71E-05	2.06E-04	potential residence	3.08E-09	7.08E-08	2.93E-08	0.10
564710_4183190	564710	4183190	2.37E-04	2.21E-04	2.17E-04	0.00E+00	3.81E-04	6.58E-04	9.23E-05	2.19E-04	potential residence	3.22E-09	7.39E-08	3.10E-08	0.11
564730_4183190	564730	4183190	2.47E-04	2.30E-04	2.26E-04	0.00E+00	4.02E-04	6.94E-04	9.74E-05	2.31E-04	potential residence	3.35E-09	7.69E-08	3.27E-08	0.11
564470_4183210	564470	4183210	1.71E-04	1.60E-04	1.57E-04	0.00E+00	2.41E-04	4.16E-04	5.84E-05	1.38E-04	potential residence	2.32E-09	5.34E-08	1.97E-08	0.08
564490_4183210	564490	4183210	1.77E-04	1.65E-04	1.63E-04	0.00E+00	2.50E-04	4.31E-04	6.05E-05	1.43E-04	potential residence	2.40E-09	5.53E-08	2.05E-08	0.08
564510_4183210	564510	4183210	1.83E-04	1.71E-04	1.69E-04	0.00E+00	2.59E-04	4.48E-04	6.29E-05	1.49E-04	potential residence	2.49E-09	5.72E-08	2.12E-08	0.08
564530_4183210	564530	4183210	1.90E-04	1.77E-04	1.74E-04	0.00E+00	2.70E-04	4.66E-04	6.54E-05	1.55E-04	potential residence	2.57E-09	5.91E-08	2.21E-08	0.08
564550_4183210	564550	4183210	1.96E-04	1.82E-04	1.80E-04	0.00E+00	2.81E-04	4.86E-04	6.82E-05	1.61E-04	potential residence	2.65E-09	6.10E-08	2.30E-08	0.09
564570_4183210	564570	4183210	2.02E-04	1.88E-04	1.85E-04	0.00E+00	2.94E-04	5.08E-04	7.13E-05	1.69E-04	potential residence	2.74E-09	6.29E-08	2.40E-08	0.09
564590_4183210	564590	4183210	2.08E-04	1.94E-04	1.91E-04	0.00E+00	3.09E-04	5.33E-04	7.49E-05	1.77E-04	potential residence	2.83E-09	6.50E-08	2.52E-08	0.09
564610_4183210	564610	4183210	2.15E-04	2.01E-04	1.98E-04	0.00E+00	3.25E-04	5.61E-04	7.88E-05	1.86E-04	potential residence	2.92E-09	6.71E-08	2.65E-08	0.10
564630_4183210	564630	4183210	2.22E-04	2.07E-04	2.04E-04	0.00E+00	3.42E-04	5.90E-04	8.29E-05	1.96E-04	potential residence	3.02E-09	6.93E-08	2.79E-08	0.10
564650_4183210	564650	4183210	2.31E-04	2.15E-04	2.12E-04	0.00E+00	3.62E-04	6.25E-04	8.77E-05	2.07E-04	potential residence	3.13E-09	7.19E-08	2.95E-08	0.10
564670_4183210	564670	4183210	2.39E-04	2.23E-04	2.19E-04	0.00E+00	3.82E-04	6.60E-04	9.26E-05	2.19E-04	potential residence	3.24E-09	7.45E-08	3.11E-08	0.11
564690_4183210	564690	4183210	2.50E-04	2.32E-04	2.29E-04	0.00E+00	4.07E-04	7.03E-04	9.86E-05	2.33E-04	potential residence	3.39E-09	7.78E-08	3.31E-08	0.11
564430_4183230	564430	4183230	1.70E-04	1.59E-04	1.56E-04	0.00E+00	2.48E-04	4.28E-04	6.01E-05	1.42E-04	potential residence	2.31E-09	5.31E-08	2.03E-08	0.08
564450_4183230	564450	4183230	1.77E-04	1.65E-04	1.63E-04	0.00E+00	2.57E-04	4.44E-04	6.23E-05	1.47E-04	potential residence	2.40E-09	5.53E-08	2.10E-08	0.08
564470_4183230	564470	4183230	1.85E-04	1.72E-04	1.70E-04	0.00E+00	2.67E-04	4.60E-04	6.46E-05	1.53E-04	potential residence	2.51E-09	5.76E-08	2.18E-08	0.08
564490_4183230	564490	4183230	1.92E-04	1.79E-04	1.76E-04	0.00E+00	2.76E-04	4.77E-04	6.70E-05	1.59E-04	potential residence	2.60E-09	5.99E-08	2.26E-08	0.09

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	∑R1*C_{DPM} 3rd Trimester	0<2	2<16	Total
564510_4183230	564510	4183230	1.99E-04	1.86E-04	1.83E-04	0.00E+00	2.88E-04	4.96E-04	6.97E-05	1.65E-04	potential residence	2.70E-09	6.22E-08	2.35E-08	0.09
564530_4183230	564530	4183230	2.07E-04	1.92E-04	1.90E-04	0.00E+00	2.99E-04	5.17E-04	7.26E-05	1.72E-04	potential residence	2.80E-09	6.44E-08	2.45E-08	0.09
564550_4183230	564550	4183230	2.14E-04	1.99E-04	1.96E-04	0.00E+00	3.13E-04	5.41E-04	7.60E-05	1.80E-04	potential residence	2.90E-09	6.67E-08	2.56E-08	0.10
564570_4183230	564570	4183230	2.21E-04	2.06E-04	2.03E-04	0.00E+00	3.29E-04	5.67E-04	7.97E-05	1.88E-04	potential residence	3.00E-09	6.89E-08	2.68E-08	0.10
564590_4183230	564590	4183230	2.29E-04	2.13E-04	2.10E-04	0.00E+00	3.46E-04	5.97E-04	8.38E-05	1.98E-04	potential residence	3.10E-09	7.12E-08	2.82E-08	0.10
564610_4183230	564610	4183230	2.36E-04	2.20E-04	2.17E-04	0.00E+00	3.64E-04	6.29E-04	8.83E-05	2.09E-04	potential residence	3.21E-09	7.36E-08	2.97E-08	0.11
564630_4183230	564630	4183230	2.45E-04	2.28E-04	2.24E-04	0.00E+00	3.86E-04	6.66E-04	9.34E-05	2.21E-04	potential residence	3.32E-09	7.62E-08	3.14E-08	0.11
564650_4183230	564650	4183230	2.54E-04	2.36E-04	2.33E-04	0.00E+00	4.09E-04	7.07E-04	9.92E-05	2.35E-04	potential residence	3.44E-09	7.91E-08	3.33E-08	0.12
564670_4183230	564670	4183230	2.64E-04	2.46E-04	2.42E-04	0.00E+00	4.36E-04	7.52E-04	1.05E-04	2.50E-04	potential residence	3.58E-09	8.23E-08	3.54E-08	0.12
564390_4183250	564390	4183250	1.66E-04	1.55E-04	1.52E-04	0.00E+00	2.52E-04	4.35E-04	6.11E-05	1.45E-04	potential residence	2.25E-09	5.18E-08	2.06E-08	0.07
564410_4183250	564410	4183250	1.74E-04	1.62E-04	1.60E-04	0.00E+00	2.63E-04	4.55E-04	6.38E-05	1.51E-04	potential residence	2.36E-09	5.43E-08	2.15E-08	0.08
564430_4183250	564430	4183250	1.83E-04	1.70E-04	1.68E-04	0.00E+00	2.74E-04	4.74E-04	6.65E-05	1.57E-04	potential residence	2.48E-09	5.69E-08	2.24E-08	0.08
564450_4183250	564450	4183250	1.91E-04	1.78E-04	1.75E-04	0.00E+00	2.85E-04	4.93E-04	6.92E-05	1.64E-04	potential residence	2.59E-09	5.96E-08	2.33E-08	0.09
564470_4183250	564470	4183250	2.00E-04	1.86E-04	1.83E-04	0.00E+00	2.97E-04	5.12E-04	7.19E-05	1.70E-04	potential residence	2.71E-09	6.23E-08	2.42E-08	0.09
564490_4183250	564490	4183250	2.09E-04	1.94E-04	1.91E-04	0.00E+00	3.08E-04	5.32E-04	7.47E-05	1.77E-04	potential residence	2.83E-09	6.50E-08	2.52E-08	0.09
564510_4183250	564510	4183250	2.17E-04	2.02E-04	1.99E-04	0.00E+00	3.21E-04	5.54E-04	7.78E-05	1.84E-04	potential residence	2.95E-09	6.77E-08	2.62E-08	0.10
564530_4183250	564530	4183250	2.26E-04	2.10E-04	2.07E-04	0.00E+00	3.35E-04	5.78E-04	8.12E-05	1.92E-04	potential residence	3.07E-09	7.04E-08	2.74E-08	0.10
564550_4183250	564550	4183250	2.35E-04	2.18E-04	2.15E-04	0.00E+00	3.51E-04	6.06E-04	8.51E-05	2.01E-04	potential residence	3.18E-09	7.31E-08	2.87E-08	0.10
564570_4183250	564570	4183250	2.43E-04	2.26E-04	2.23E-04	0.00E+00	3.69E-04	6.37E-04	8.94E-05	2.12E-04	potential residence	3.30E-09	7.58E-08	3.01E-08	0.11
564590_4183250	564590	4183250	2.52E-04	2.35E-04	2.31E-04	0.00E+00	3.90E-04	6.73E-04	9.45E-05	2.24E-04	potential residence	3.42E-09	7.86E-08	3.18E-08	0.11
564610_4183250	564610	4183250	2.61E-04	2.43E-04	2.40E-04	0.00E+00	4.13E-04	7.14E-04	1.00E-04	2.37E-04	potential residence	3.55E-09	8.14E-08	3.37E-08	0.12
564630_4183250	564630	4183250	2.71E-04	2.52E-04	2.49E-04	0.00E+00	4.40E-04	7.59E-04	1.06E-04	2.52E-04	potential residence	3.68E-09	8.44E-08	3.58E-08	0.12
564650_4183250	564650	4183250	2.81E-04	2.62E-04	2.58E-04	0.00E+00	4.68E-04	8.07E-04	1.13E-04	2.68E-04	potential residence	3.81E-09	8.76E-08	3.80E-08	0.13
564350_4183270	564350	4183270	1.59E-04	1.48E-04	1.46E-04	0.00E+00	2.50E-04	4.32E-04	6.06E-05	1.44E-04	potential residence	2.16E-09	4.96E-08	2.04E-08	0.07
564370_4183270	564370	4183270	1.68E-04	1.56E-04	1.54E-04	0.00E+00	2.64E-04	4.56E-04	6.40E-05	1.51E-04	potential residence	2.27E-09	5.22E-08	2.15E-08	0.08
564390_4183270	564390	4183270	1.77E-04	1.64E-04	1.62E-04	0.00E+00	2.78E-04	4.80E-04	6.73E-05	1.59E-04	potential residence	2.40E-09	5.51E-08	2.26E-08	0.08
564410_4183270	564410	4183270	1.86E-04	1.73E-04	1.71E-04	0.00E+00	2.91E-04	5.03E-04	7.06E-05	1.67E-04	potential residence	2.52E-09	5.80E-08	2.37E-08	0.08
564430_4183270	564430	4183270	1.96E-04	1.82E-04	1.80E-04	0.00E+00	3.05E-04	5.27E-04	7.39E-05	1.75E-04	potential residence	2.66E-09	6.10E-08	2.49E-08	0.09
564450_4183270	564450	4183270	2.06E-04	1.92E-04	1.89E-04	0.00E+00	3.18E-04	5.49E-04	7.72E-05	1.82E-04	potential residence	2.79E-09	6.41E-08	2.60E-08	0.09
564470_4183270	564470	4183270	2.17E-04	2.01E-04	1.99E-04	0.00E+00	3.33E-04	5.74E-04	8.06E-05	1.91E-04	potential residence	2.94E-09	6.75E-08	2.71E-08	0.10
564490_4183270	564490	4183270	2.28E-04	2.11E-04	2.08E-04	0.00E+00	3.47E-04	5.99E-04	8.42E-05	1.99E-04	potential residence	3.09E-09	7.08E-08	2.83E-08	0.10
564510_4183270	564510	4183270	2.38E-04	2.22E-04	2.18E-04	0.00E+00	3.63E-04	6.27E-04	8.80E-05	2.08E-04	potential residence	3.23E-09	7.42E-08	2.96E-08	0.11
564530_4183270	564530	4183270	2.48E-04	2.31E-04	2.27E-04	0.00E+00	3.77E-04	6.51E-04	9.15E-05	2.16E-04	potential residence	3.36E-09	7.72E-08	3.08E-08	0.11
564550_4183270	564550	4183270	2.59E-04	2.41E-04	2.37E-04	0.00E+00	3.97E-04	6.85E-04	9.62E-05	2.27E-04	potential residence	3.51E-09	8.05E-08	3.24E-08	0.12
564570_4183270	564570	4183270	2.69E-04	2.51E-04	2.47E-04	0.00E+00	4.19E-04	7.24E-04	1.02E-04	2.40E-04	potential residence	3.65E-09	8.39E-08	3.42E-08	0.12
564590_4183270	564590	4183270	2.80E-04	2.61E-04	2.57E-04	0.00E+00	4.46E-04	7.70E-04	1.08E-04	2.56E-04	potential residence	3.80E-09	8.73E-08	3.63E-08	0.13
564610_4183270	564610	4183270	2.91E-04	2.70E-04	2.66E-04	0.00E+00	4.73E-04	8.17E-04	1.15E-04	2.71E-04	potential residence	3.94E-09	9.05E-08	3.85E-08	0.13
564310_4183290	564310	4183290	1.50E-04	1.39E-04	1.37E-04	0.00E+00	2.41E-04	4.16E-04	5.84E-05	1.38E-04	potential residence	2.03E-09	4.66E-08	1.96E-08	0.07
564330_4183290	564330	4183290	1.59E-04	1.47E-04	1.45E-04	0.00E+00	2.57E-04	4.43E-04	6.22E-05	1.47E-04	potential residence	2.15E-09	4.93E-08	2.09E-08	0.07
564350_4183290	564350	4183290	1.68E-04	1.56E-04	1.54E-04	0.00E+00	2.73E-04	4.71E-04	6.61E-05	1.56E-04	potential residence	2.28E-09	5.22E-08	2.22E-08	0.08
564370_4183290	564370	4183290	1.78E-04	1.65E-04	1.62E-04	0.00E+00	2.89E-04	5.00E-04	7.01E-05	1.66E-04	potential residence	2.41E-09	5.52E-08	2.35E-08	0.08
564390_4183290	564390	4183290	1.88E-04	1.74E-04	1.72E-04	0.00E+00	3.06E-04	5.28E-04	7.42E-05	1.75E-04	potential residence	2.55E-09	5.84E-08	2.49E-08	0.09
564410_4183290	564410	4183290	1.99E-04	1.84E-04	1.82E-04	0.00E+00	3.23E-04	5.58E-04	7.84E-05	1.85E-04	potential residence	2.70E-09	6.18E-08	2.63E-08	0.09
564430_4183290	564430	4183290	2.10E-04	1.95E-04	1.92E-04	0.00E+00	3.40E-04	5.88E-04	8.25E-05	1.95E-04	potential residence	2.85E-09	6.54E-08	2.77E-08	0.10
564450_4183290	564450	4183290	2.23E-04	2.07E-04	2.04E-04	0.00E+00	3.59E-04	6.20E-04	8.71E-05	2.06E-04	potential residence	3.02E-09	6.93E-08	2.92E-08	0.10
564470_4183290	564470	4183290	2.35E-04	2.18E-04	2.15E-04	0.00E+00	3.76E-04	6.49E-04	9.12E-05	2.15E-04	potential residence	3.19E-09	7.31E-08	3.06E-08	0.11
564490_4183290	564490	4183290	2.48E-04	2.30E-04	2.27E-04	0.00E+00	3.94E-04	6.80E-04	9.56E-05	2.26E-04	potential residence	3.37E-09	7.72E-08	3.21E-08	0.11
564510_4183290	564510	4183290	2.62E-04	2.43E-04	2.39E-04	0.00E+00	4.13E-04	7.13E-04	1.00E-04	2.37E-04	potential residence	3.55E-09	8.13E-08	3.37E-08	0.12
564530_4183290	564530	4183290	2.74E-04	2.54E-04	2.50E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence	3.71E-09	8.51E-08	3.51E-08	0.12
564550_4183290	564550	4183290	2.86E-04	2.66E-04	2.62E-04	0.00E+00	4.53E-04	7.81E-04	1.10E-04	2.60E-04	potential residence	3.88E-09	8.90E-08	3.69E-08	0.13
564570_4183290	564570	4183290	2.99E-04	2.78E-04	2.74E-04	0.00E+00	4.80E-04	8.29E-04	1.16E-04	2.75E-04	potential residence	4.06E-09	9.32E-08	3.91E-08	0.14
564290_4183310	564290	4183310	1.47E-04	1.37E-04	1.35E-04	0.00E+00	2.41E-04	4.16E-04	5.84E-05	1.38E-04	potential residence	2.00E-09	4.58E-08	1.96E-08	0.07
564310_4183310	564310	4183310	1.56E-04	1.45E-04	1.43E-04	0.00E+00	2.58E-04	4.46E-04	6.26E-05	1.48E-04	potential residence	2.12E-09	4.86E-08	2.10E-08	0.07
564330_4183310	564330	4183310	1.66E-04	1.54E-04	1.52E-04	0.00E+00	2.77E-04	4.78E-04	6.72E-05	1.59E-04	potential residence	2.25E-09	5.16E-08	2.25E-08	0.08
564350_4183310	564350	4183310	1.76E-04	1.63E-04	1.61E-04	0.00E+00	2.96E-04	5.11E-04	7.19E-05	1.70E-04	potential residence	2.39E-09	5.47E-08	2.41E-08	0.08
564370_4183310	564370	4183310	1.88E-04	1.74E-04	1.71E-04	0.00E+00	3.17E-04	5.47E-04	7.69E-05	1.82E-04	potential residence	2.54E-09	5.82E-08	2.58E-08	0.09
564390_4183310	564390	4183310	2.00E-04	1.85E-04	1.82E-04	0.00E+00	3.38E-04	5.84E-04	8.21E-05	1.94E-04	potential residence	2.71E-09	6.19E-08	2.75E-08	0.09
564410_4183310	564410	4183310	2.12E-04	1.96E-04	1.94E-04	0.00E+00	3.60E-04	6.22E-04	8.75E-05	2.07E-04	potential residence	2.88E-09	6.59E-08	2.93E-08	0.10
564430_4183310	564430	4183310	2.26E-04	2.09E-04	2.06E-04	0.00E+00	3.82E-04	6.60E-04	9.28E-05	2.19E-04	potential residence	3.06E-09	7.00E-08	3.11E-08	0.10
564450_4183310	564450	4183310	2.41E-04	2.22E-04	2.19E-04	0.00E+00	4.06E-04	7.01E-04	9.85E-05	2.33E-04	potential residence	3.26E-09	7.46E-08	3.30E-08	0.11
564470_4183310	564470	4183310	2.56E-04	2.37E-04	2.33E-04	0.00E+00	4.29E-04	7.40E-04	1.04E-04	2.46E-04	potential residence	3.47E-09	7.93E-08	3.48E-08	0.12
564490_4183310	564490	4183310	2.71E-04	2.51E-04	2.47E-04	0.00E+00	4.50E-04	7.77E-04	1.09E-04	2.58E-04	potential residence	3.68E-09	8.41E-08	3.66E-08	0.12
564510_4183310	564510	4183310	2.87E-04	2.65E-04	2.62E-04	0.00E+00	4.72E-04	8.16E-04	1.15E-04	2.71E-04	potential residence	3.89E-09	8.90E-08	3.84E-08	0.13
564530_4183310	564530	4183310	3.02E-04	2.80E-04	2.76E-04	0.00E+00	4.95E-04	8.55E-04	1.20E-04	2.84E-04	potential residence	4.09E-09	9.38E-08	4.03E-08	0.14
564290_4183330	564290	4183330	1.53E-04	1.41E-04	1.39E-04	0.00E+00	2.56E-04	4.42E-04	6.21E-05	1.47E-04	potential residence	2.08E-09	4.74E-08	2.08E-08	0.07
564310_4183330	564310	4183330	1.63E-04	1.50E-04	1.48E-04	0.00E+00	2.76E-04	4.77E-04	6.70E-05	1.58E-04	potential residence	2.21E-09	5.05E-08	2.24E-08	0.08
564330_4183330	564330	4183330	1.74E-04	1.60E-04	1.58E-04	0.00E+00	2.98E-04	5.14E-04	7.23E-05	1.71E-04	potential residence	2.36E-09	5.37E-08	2.42E-08	0.08
564350_4183330	564350	4183330	1.86E-04	1.71E-04	1.68E-04	0.00E+00	3.22E-04	5.56E-04	7.81E-05	1.84E-04	potential residence	2.52E-09	5.74E-08	2.61E-08	0.09
564370_4183330	564370	4183330	1.98E-04	1.82E-04	1.80E-04	0.00E+00	3.48E-04	6.00E-04	8.44E-05	1.99E-04	potential residence	2.69E-09	6.13E-08	2.82E-08	0.09
564390_4183330	564390	4183330	2.12E-04	1.95E-04	1.92E-04	0.00E+00	3.75E-04	6.47E-04	9.10E-05	2.15E-04	potential residence	2.87E-09	6.55E-08	3.04E-08	0.10
564410_4183330	564410	4183330	2.27E-04	2.09E-04	2.06E-04	0.00E+00	4.03E-04	6.95E-04	9.78E-05	2.31E-04	potential residence	3.07E-09	7.01E-08	3.27E-08	0.11
564430_4183330	564430	4183330	2.42E-04	2.23E-04	2.20E-04	0.00E+00	4.31E-04	7.44E-04	1.05E-04	2.47E-04	potential residence	3.29E-09	7.49E-08	3.49E-08	0.11
564450_4183330	564450	4183330	2.59E-04	2.39E-04	2.35E-04	0.00E+00	4.61E-04	7.96E-04	1.12E-04	2.64E-04	potential residence	3.52E-09	8.02E-08	3.74E-08	0.12
564470_4183330	564470	4183330	2.78E-04	2.56E-04	2.52E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	potential residence	3.76E-09	8.59E-08	3.99E-08	0.13
564490_4183330	564490	4183330	2.95E-04	2.72E-04	2.69E-04	0.00E+00	5.18E-04	8.95E-04	1.26E-04	2.97E-04	potential residence	4.01E-09	9.15E-08	4.21E-08	0.14
564270_4183350	564270	4183350	1.49E-04	1.37E-04	1.35E-04	0.00E+00	2.49E-04	4.30E-04	6.06E-05	1.43E-04	potential residence	2.02E-09	4.59E-08	2.03E-08	0.07
564290_4183350	564290	4183350	1.59E-04	1.46E-04	1.44E-04	0.00E+00	2.70E-04	4.66E-04	6.57E-05	1.55E-04	potential residence	2.15E-09	4.90E-08	2.19E-08	0.07
564310_4183350	564310	4183350	1.70E-04	1.55E-04	1.53E-04	0.00E+00	2.93E-04	5.06E-04	7.13E-05	1.68E-04	potential residence	2.30E-09	5.23E-08	2.38E-08	0.08
564330_4183350	564330	4183350	1.82E-04	1.66E-04	1.64E-04	0.00E+00	3.19E-04	5.51E-04	7.77E-05	1.83E-04	potential residence	2.46E-09	5.60E-08	2.59E-08	0.08
564350_4183350	564350	4183350	1.95E-04	1.78E-04	1.76E-04	0.00E+00	3.48E-04	6.01E-04	8.47E-05	2.00E-04	potential residence	2.64E-09	6.00E-08	2.82E-08	0.09
564370_4183350	564370	4183350	2.09E-04	1.91E-04	1.88E-04	0.00E+00	3.80E-04	6.56E-04	9.23E-05	2.18E-04	potential residence	2.84E-09	6.43E-08	3.08E-08	0.10
564390_4183350	564390	4183350	2.25E-04	2.05E-04	2.02E-04	0.00E+00	4.14E-04	7.14E-04	1.01E-04	2.37E-04	potential residence	3.05E-09	6.91E-08	3.35E-08	0.11
564410_4183350	564410	4183350	2.42E-04	2.21E-04	2.18E-04	0.00E+00	4.50E-04	7.77E-04	1.09E-04	2.58E-04	potential residence	3.28E-09	7.43E-08	3.64E-08	0.11
564430_4183350	564430	4183350	2.60E-04	2.38E-04	2.34E-04	0.00E+00	4.88E-04	8.42E-04	1.19E-04	2.80E-04	potential residence	3.53E-09	8.00E-08	3.95E-08	0.12
564450_4183350	564450	4183350	2.79E-04	2.56E-04	2.52E-04	0.00E+00	5.26E-04	9.09E-04	1.28E-04	3.02E-04	potential residence	3.79E-09	8.60E-08	4.26E-08	0.13
564270_4183370	564270	4183370	1.54E-04	1.40E-04	1.38E-04	0.00E+00	2.60E-04	4.50E-04	6.35E-05	1.49E-04	potential residence	2.09E-09	4.73E-08	2.12E-08	0.07
564290_4183370	564290	4183370	1.65E-04	1.50E-04	1.48E-04	0.00E+00	2.84E-04	4.91E-04	6.93E-05	1.63E-04	potential residence	2.24E-09	5.06E-08	2.31E-08	0.08
564310_4183370	564310	4183370	1.77E-04	1.61E-04	1.58E-04	0.00E+00	3.11E-04	5.37E-04	7.58E-05	1.78E-04	potential residence	2.40E-09	5.42E-08	2.52E-08	0.08
564330_4183370	564330	4183370	1.90E-04	1.72E-04	1.70E-04	0.00E+00	3.40E-04	5.88E-04	8.31E-05	1.95E-04	potential residence	2.58E-09	5.82E-08	2.76E-08	0.09
564350_4183370	564350	4183370	2.05E-04	1.85E-04	1.83E-04	0.00E+00	3.75E-04	6.48E-04	9.14E-05	2.15E-04	potential residence	2.78E-09	6.26E-08	3.04E-08	0.10
564370_4183370	564370	4183370	2.21E-04	2.00E-04	1.97E-04	0.00E+00	4.13E-04	7.13E-04	1.01E-04	2.37E-04	potential residence	2.99E-09	6.74E-08	3.34E-08	0.10
564390_4183370	564390	4183370	2.39E-04	2.15E-04	2.12E-04	0.00E+00	4.55E-04	7.86E-04	1.11E-04	2.61E-04	potential residence	3.24E-09	7.28E-08	3.68E-08	0.11
564410_4183370	564410	4183370	2.58E-04	2.33E-04	2.30E-04	0.00E+00	5.01E-04	8.65E-04	1.22E-04	2.87E-04	potential residence	3.50E-09	7.87E-08	4.05E-08	0.12
564250_4183390	564250	4183390	1.49E-04	1.34E-04	1.32E-04	0.00E+00	2.47E-04	4.28E-04	6.05E-05	1.42E-04	potential residence	2.02E-09	4.53E-08	2.01E-08	0.07
564270_4183390	564270	4183390	1.60E-04	1.44E-04	1.42E-04	0.00E+00	2.71E-04	4.68E-04	6.62E-05	1.55E-04	potential residence	2.16E-09	4.86E-08	2.20E-08	0.07
564290_4183390	564290	4183390	1.72E-04	1.54E-04	1.52E-04	0.00E+00	2.97E-04	5.14E-04	7.28E-05	1.70E-04	potential residence	2.33E-09	5.22E-08	2.42E-08	0.08
564310_4183390	564310	4183390	1.85E-04	1.66E-04	1.63E-04	0.00E+00	3.27E-04	5.66E-04	8.02E-05	1.88E-04	potential residence	2.51E-09	5.61E-08	2.66E-08	0.09
564330_4183390	564330	4183390	2.00E-04	1.78E-04	1.76E-04	0.00E+00	3.61E-04	6.24E-04	8.84E-05	2.07E-04	potential residence	2.71E-09	6.05E-08	2.93E-08	0.09
564350_4183390	564350	4183390	2.16E-04	1.92E-04	1.90E-04	0.00E+00	4.01E-04	6.93E-04	9.82E-05	2.30E-04	potential residence	2.93E-09	6.53E-08	3.25E-08	0.10
564370_4183390	564370	4183390	2.34E-04	2.08E-04	2.06E-04	0.00E+00	4.46E-04	7.72E-04	1.09E-04	2.56E-04	potential residence	3.18E-09	7.08E-08	3.61E-08	0.11
564690_4183390	564690	4183390	8.66E-04	8.01E-04	7.90E-04	0.00E+00	2.54E-03	4.38E-03	6.12E-04	1.46E-03	potential residence	1.18E-08	2.69E-07	2.03E-07	0.48
564710_4183390	564710	4183390	9.43E-04	8.68E-04	8.56E-04	0.00E+00	2.77E-03	4.77E-03	6.67E-04	1.59E-03	potential residence	1.28E-08	2.92E-07	2.21E-07	0.53
564250_4183410	564250	4183410	1.54E-04	1.37E-04	1.35E-04	0.00E+00	2.55E-04	4.41E-04	6.26E-05	1.46E-04	potential residence	2.08E-09	4.65E-08	2.07E-08	0.07
564270_4183410	564270	4183410	1.66E-04	1.47E-04	1.45E-04	0.00E+00	2.80E-04	4.84E-04	6.88E-05	1.60E-04	potential residence	2.25E-09	5.00E-08	2.28E-08	0.07

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type	∑R1*C_{DPM}			
			2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564290_4183410	564290	4183410	1.80E-04	1.58E-04	1.56E-04	0.00E+00	3.09E-04	5.34E-04	7.61E-05	1.77E-04	potential residence	2.44E-09	5.39E-08	2.51E-08	0.08
564310_4183410	564310	4183410	1.95E-04	1.71E-04	1.69E-04	0.00E+00	3.43E-04	5.93E-04	8.45E-05	1.96E-04	potential residence	2.65E-09	5.83E-08	2.78E-08	0.09
564330_4183410	564330	4183410	2.13E-04	1.85E-04	1.83E-04	0.00E+00	3.81E-04	6.60E-04	9.41E-05	2.18E-04	potential residence	2.88E-09	6.33E-08	3.09E-08	0.10
564570_4183410	564570	4183410	6.02E-04	5.57E-04	5.49E-04	0.00E+00	1.57E-03	2.71E-03	3.79E-04	9.01E-04	potential residence	8.16E-09	1.87E-07	1.26E-07	0.32
564590_4183410	564590	4183410	6.68E-04	6.19E-04	6.10E-04	0.00E+00	1.77E-03	3.05E-03	4.26E-04	1.01E-03	potential residence	9.05E-09	2.08E-07	1.42E-07	0.36
564690_4183410	564690	4183410	1.08E-03	9.88E-04	9.74E-04	0.00E+00	3.60E-03	6.20E-03	8.67E-04	2.06E-03	potential residence	1.46E-08	3.32E-07	2.87E-07	0.63
564710_4183410	564710	4183410	1.20E-03	1.09E-03	1.07E-03	0.00E+00	3.78E-03	6.53E-03	9.15E-04	2.17E-03	potential residence	1.62E-08	3.66E-07	3.02E-07	0.68
564230_4183430	564230	4183430	1.48E-04	1.30E-04	1.28E-04	0.00E+00	2.37E-04	4.11E-04	5.86E-05	1.36E-04	potential residence	2.00E-09	4.43E-08	1.93E-08	0.07
564250_4183430	564250	4183430	1.60E-04	1.40E-04	1.38E-04	0.00E+00	2.61E-04	4.51E-04	6.45E-05	1.49E-04	potential residence	2.17E-09	4.78E-08	2.12E-08	0.07
564270_4183430	564270	4183430	1.74E-04	1.51E-04	1.49E-04	0.00E+00	2.88E-04	4.98E-04	7.13E-05	1.65E-04	potential residence	2.36E-09	5.16E-08	2.34E-08	0.08
564290_4183430	564290	4183430	1.90E-04	1.63E-04	1.61E-04	0.00E+00	3.19E-04	5.53E-04	7.94E-05	1.83E-04	potential residence	2.58E-09	5.61E-08	2.60E-08	0.08
564550_4183430	564550	4183430	5.97E-04	5.49E-04	5.41E-04	0.00E+00	1.85E-03	3.20E-03	4.47E-04	1.06E-03	potential residence	8.10E-09	1.84E-07	1.48E-07	0.34
564570_4183430	564570	4183430	6.74E-04	6.22E-04	6.13E-04	0.00E+00	2.13E-03	3.67E-03	5.13E-04	1.22E-03	potential residence	9.14E-09	2.09E-07	1.70E-07	0.39
564590_4183430	564590	4183430	7.62E-04	7.04E-04	6.94E-04	0.00E+00	2.48E-03	4.28E-03	5.98E-04	1.42E-03	potential residence	1.03E-08	2.36E-07	1.98E-07	0.44
564630_4183430	564630	4183430	9.71E-04	8.95E-04	8.82E-04	0.00E+00	3.49E-03	6.02E-03	8.41E-04	2.00E-03	potential residence	1.32E-08	3.00E-07	2.78E-07	0.59
564650_4183430	564650	4183430	1.09E-03	1.00E-03	9.86E-04	0.00E+00	4.17E-03	7.19E-03	1.00E-03	2.39E-03	potential residence	1.48E-08	3.36E-07	3.31E-07	0.68
564730_4183430	564730	4183430	1.74E-03	1.56E-03	1.54E-03	0.00E+00	4.94E-03	8.53E-03	1.20E-03	2.83E-03	potential residence	2.36E-08	5.29E-07	3.96E-07	0.95
564230_4183450	564230	4183450	1.55E-04	1.33E-04	1.31E-04	0.00E+00	2.41E-04	4.18E-04	6.01E-05	1.38E-04	potential residence	2.10E-09	4.56E-08	1.97E-08	0.07
564250_4183450	564250	4183450	1.69E-04	1.43E-04	1.42E-04	0.00E+00	2.66E-04	4.61E-04	6.65E-05	1.52E-04	potential residence	2.29E-09	4.95E-08	2.17E-08	0.07
564570_4183450	564570	4183450	7.47E-04	6.84E-04	6.75E-04	0.00E+00	2.98E-03	5.15E-03	7.19E-04	1.71E-03	potential residence	1.01E-08	2.30E-07	2.37E-07	0.48
564590_4183450	564590	4183450	8.64E-04	7.92E-04	7.80E-04	0.00E+00	3.64E-03	6.28E-03	8.77E-04	2.09E-03	potential residence	1.17E-08	2.66E-07	2.89E-07	0.57
564610_4183450	564610	4183450	1.01E-03	9.20E-04	9.07E-04	0.00E+00	4.50E-03	7.76E-03	1.08E-03	2.58E-03	potential residence	1.37E-08	3.10E-07	3.57E-07	0.68
564690_4183450	564690	4183450	1.76E-03	1.60E-03	1.58E-03	0.00E+00	7.49E-03	1.29E-02	1.81E-03	4.30E-03	potential residence	2.39E-08	5.40E-07	5.95E-07	1.16
564710_4183450	564710	4183450	1.96E-03	1.80E-03	1.78E-03	0.00E+00	6.91E-03	1.19E-02	1.66E-03	3.96E-03	potential residence	2.65E-08	6.06E-07	5.50E-07	1.18
564730_4183450	564730	4183450	2.22E-03	2.06E-03	2.04E-03	0.00E+00	6.17E-03	1.06E-02	1.49E-03	3.54E-03	potential residence	3.01E-08	6.91E-07	4.94E-07	1.22
564450_4183470	564450	4183470	4.07E-04	3.45E-04	3.41E-04	0.00E+00	1.08E-03	1.86E-03	2.65E-04	6.17E-04	potential residence	5.52E-09	1.19E-07	8.64E-08	0.21
564470_4183470	564470	4183470	4.37E-04	3.80E-04	3.75E-04	0.00E+00	1.32E-03	2.28E-03	3.22E-04	7.58E-04	potential residence	5.92E-09	1.30E-07	1.06E-07	0.24
564490_4183470	564490	4183470	4.80E-04	4.25E-04	4.19E-04	0.00E+00	1.66E-03	2.87E-03	4.03E-04	9.52E-04	potential residence	6.51E-09	1.44E-07	1.32E-07	0.28
564530_4183470	564530	4183470	6.10E-04	5.50E-04	5.42E-04	0.00E+00	2.65E-03	4.57E-03	6.39E-04	1.52E-03	potential residence	8.28E-09	1.86E-07	2.10E-07	0.40
564550_4183470	564550	4183470	7.05E-04	6.36E-04	6.27E-04	0.00E+00	3.35E-03	5.79E-03	8.09E-04	1.92E-03	potential residence	9.56E-09	2.15E-07	2.66E-07	0.49
564570_4183470	564570	4183470	8.27E-04	7.46E-04	7.36E-04	0.00E+00	4.36E-03	7.52E-03	1.05E-03	2.50E-03	potential residence	1.12E-08	2.52E-07	3.45E-07	0.61
564590_4183470	564590	4183470	9.93E-04	8.89E-04	8.77E-04	0.00E+00	5.86E-03	1.01E-02	1.41E-03	3.36E-03	potential residence	1.35E-08	3.01E-07	4.63E-07	0.78
564650_4183470	564650	4183470	1.67E-03	1.51E-03	1.49E-03	0.00E+00	1.24E-02	2.13E-02	2.97E-03	7.09E-03	potential residence	2.26E-08	5.09E-07	9.75E-07	1.51
564670_4183470	564670	4183470	1.90E-03	1.76E-03	1.73E-03	0.00E+00	1.18E-02	2.04E-02	2.84E-03	6.79E-03	potential residence	2.58E-08	5.89E-07	9.35E-07	1.55
564690_4183470	564690	4183470	2.21E-03	2.06E-03	2.03E-03	0.00E+00	1.04E-02	1.80E-02	2.51E-03	5.99E-03	potential residence	3.00E-08	6.90E-07	8.27E-07	1.55
564710_4183470	564710	4183470	2.60E-03	2.45E-03	2.41E-03	0.00E+00	8.87E-03	1.53E-02	2.13E-03	5.09E-03	potential residence	3.53E-08	8.16E-07	7.07E-07	1.56
564730_4183470	564730	4183470	3.13E-03	2.95E-03	2.91E-03	0.00E+00	7.46E-03	1.29E-02	1.79E-03	4.28E-03	potential residence	4.24E-08	9.84E-07	5.99E-07	1.63
564750_4183470	564750	4183470	3.85E-03	3.64E-03	3.58E-03	0.00E+00	6.28E-03	1.08E-02	1.51E-03	3.60E-03	potential residence	5.22E-08	1.21E-06	5.11E-07	1.78
564410_4183490	564410	4183490	4.01E-04	3.06E-04	3.03E-04	0.00E+00	7.84E-04	1.36E-03	1.99E-04	4.47E-04	potential residence	5.43E-09	1.09E-07	6.35E-08	0.18
564430_4183490	564430	4183490	4.00E-04	3.23E-04	3.20E-04	0.00E+00	9.28E-04	1.61E-03	2.31E-04	5.30E-04	potential residence	5.42E-09	1.13E-07	7.47E-08	0.19
564450_4183490	564450	4183490	4.18E-04	3.51E-04	3.47E-04	0.00E+00	1.13E-03	1.96E-03	2.79E-04	6.49E-04	potential residence	5.66E-09	1.21E-07	9.09E-08	0.22
564470_4183490	564470	4183490	4.50E-04	3.88E-04	3.83E-04	0.00E+00	1.43E-03	2.47E-03	3.48E-04	8.18E-04	potential residence	6.10E-09	1.33E-07	1.14E-07	0.25
564490_4183490	564490	4183490	4.98E-04	4.36E-04	4.30E-04	0.00E+00	1.86E-03	3.21E-03	4.51E-04	1.07E-03	potential residence	6.75E-09	1.49E-07	1.48E-07	0.30
564530_4183490	564530	4183490	6.55E-04	5.77E-04	5.70E-04	0.00E+00	3.43E-03	5.92E-03	8.28E-04	1.97E-03	potential residence	8.88E-09	1.97E-07	2.71E-07	0.48
564550_4183490	564550	4183490	7.79E-04	6.81E-04	6.73E-04	0.00E+00	4.72E-03	8.14E-03	1.14E-03	2.71E-03	potential residence	1.06E-08	2.33E-07	3.73E-07	0.62
564610_4183490	564610	4183490	1.35E-03	1.20E-03	1.19E-03	0.00E+00	5.35E-05	1.06E-04	2.71E-05	2.67E-05	Building C	1.83E-08	4.08E-07	1.14E-08	0.44
564630_4183490	564630	4183490	1.61E-03	1.47E-03	1.45E-03	0.00E+00	4.33E-05	8.55E-05	2.19E-05	2.16E-05	Building C	2.18E-08	4.96E-07	1.20E-08	0.53
564650_4183490	564650	4183490	1.94E-03	1.80E-03	1.77E-03	0.00E+00	2.00E-02	3.45E-02	4.80E-03	1.15E-02	potential residence	2.63E-08	6.03E-07	1.57E-06	2.20
564670_4183490	564670	4183490	2.36E-03	2.22E-03	2.18E-03	0.00E+00	1.70E-02	2.93E-02	4.07E-03	9.75E-03	potential residence	3.20E-08	7.40E-07	1.34E-06	2.11
564690_4183490	564690	4183490	2.92E-03	2.76E-03	2.72E-03	0.00E+00	1.36E-02	2.35E-02	3.27E-03	7.83E-03	potential residence	3.96E-08	9.19E-07	1.08E-06	2.04
564710_4183490	564710	4183490	3.71E-03	3.52E-03	3.47E-03	0.00E+00	1.08E-02	1.86E-02	2.59E-03	6.20E-03	potential residence	5.04E-08	1.17E-06	8.63E-07	2.08
564730_4183490	564730	4183490	4.88E-03	4.63E-03	4.56E-03	0.00E+00	8.58E-03	1.48E-02	2.06E-03	4.93E-03	potential residence	6.61E-08	1.54E-06	6.96E-07	2.30
564750_4183490	564750	4183490	6.51E-03	6.19E-03	6.09E-03	0.00E+00	6.98E-03	1.20E-02	1.68E-03	4.00E-03	potential residence	8.83E-08	2.06E-06	5.79E-07	2.73
564370_4183510	564370	4183510	2.92E-04	2.37E-04	2.35E-04	0.00E+00	5.53E-04	9.58E-04	1.39E-04	3.16E-04	potential residence	3.96E-09	8.31E-08	4.48E-08	0.13
564410_4183510	564410	4183510	4.15E-04	3.10E-04	3.08E-04	0.00E+00	7.90E-04	1.37E-03	2.02E-04	4.50E-04	potential residence	5.63E-09	1.12E-07	6.41E-08	0.18
564430_4183510	564430	4183510	4.08E-04	3.26E-04	3.23E-04	0.00E+00	9.38E-04	1.63E-03	2.34E-04	5.36E-04	potential residence	5.54E-09	1.15E-07	7.56E-08	0.20
564450_4183510	564450	4183510	4.26E-04	3.54E-04	3.50E-04	0.00E+00	1.16E-03	2.00E-03	2.85E-04	6.61E-04	potential residence	5.78E-09	1.23E-07	9.26E-08	0.22
564470_4183510	564470	4183510	4.62E-04	3.93E-04	3.88E-04	0.00E+00	1.48E-03	2.55E-03	3.61E-04	8.47E-04	potential residence	6.27E-09	1.35E-07	1.18E-07	0.26
564490_4183510	564490	4183510	5.22E-04	4.47E-04	4.41E-04	0.00E+00	1.99E-03	3.44E-03	4.85E-04	1.14E-03	potential residence	7.09E-09	1.54E-07	1.59E-07	0.32
564510_4183510	564510	4183510	6.12E-04	5.19E-04	5.13E-04	0.00E+00	2.86E-03	4.94E-03	6.95E-04	1.64E-03	potential residence	8.30E-09	1.79E-07	2.27E-07	0.41
564550_4183510	564550	4183510	9.15E-04	7.43E-04	7.35E-04	0.00E+00	7.61E-05	1.50E-04	3.85E-05	3.80E-05	Block 2	1.24E-08	2.60E-07	1.10E-08	0.28
564570_4183510	564570	4183510	9.88E-04	8.56E-04	8.46E-04	0.00E+00	5.26E-05	1.04E-04	2.66E-05	2.63E-05	Building D	1.34E-08	2.93E-07	9.47E-09	0.32
564590_4183510	564590	4183510	1.15E-03	1.03E-03	1.02E-03	0.00E+00	4.22E-05	8.34E-05	2.13E-05	2.11E-05	Building C	1.56E-08	3.49E-07	9.48E-09	0.37
564610_4183510	564610	4183510	1.40E-03	1.29E-03	1.27E-03	0.00E+00	3.59E-05	7.10E-05	1.82E-05	1.80E-05	Building C	1.90E-08	4.33E-07	1.03E-08	0.46
564630_4183510	564630	4183510	1.76E-03	1.64E-03	1.61E-03	0.00E+00	3.30E-05	6.52E-05	1.67E-05	1.65E-05	Building C	2.39E-08	5.48E-07	1.19E-08	0.58
564650_4183510	564650	4183510	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00E+00	0.00E+00	0.00E+00	0.00
564710_4183510	564710	4183510	5.82E-03	5.52E-03	5.44E-03	0.00E+00	1.19E-02	2.05E-02	2.86E-03	6.83E-03	potential residence	7.89E-08	1.84E-06	9.60E-07	2.88
564750_4183510	564750	4183510	1.91E-04	6.83E-05	7.05E-05	0.00E+00	7.27E-03	1.26E-02	1.76E-03	4.17E-03	Building B	2.58E-09	3.44E-08	5.69E-07	0.61
564770_4183510	564770	4183510	1.41E-04	5.07E-05	5.23E-05	0.00E+00	5.88E-03	1.02E-02	1.42E-03	3.38E-03	Building B	1.92E-09	2.55E-08	4.61E-07	0.49
564330_4183530	564330	4183530	2.34E-04	1.94E-04	1.92E-04	0.00E+00	4.08E-04	7.07E-04	1.02E-04	2.33E-04	potential residence	3.17E-09	6.75E-08	3.31E-08	0.10
564350_4183530	564350	4183530	2.50E-04	2.10E-04	2.07E-04	0.00E+00	4.64E-04	8.03E-04	1.15E-04	2.65E-04	potential residence	3.39E-09	7.26E-08	3.76E-08	0.11
564370_4183530	564370	4183530	2.73E-04	2.29E-04	2.26E-04	0.00E+00	5.35E-04	9.27E-04	1.33E-04	3.06E-04	potential residence	3.70E-09	7.93E-08	4.33E-08	0.13
564390_4183530	564390	4183530	3.11E-04	2.56E-04	2.53E-04	0.00E+00	6.32E-04	1.10E-03	1.58E-04	3.61E-04	potential residence	4.22E-09	8.93E-08	5.11E-08	0.14
564430_4183530	564430	4183530	4.18E-04	3.28E-04	3.25E-04	0.00E+00	9.25E-04	1.60E-03	2.32E-04	5.28E-04	potential residence	5.67E-09	1.16E-07	7.46E-08	0.20
564450_4183530	564450	4183530	4.39E-04	3.57E-04	3.53E-04	0.00E+00	1.14E-03	1.98E-03	2.83E-04	6.54E-04	potential residence	5.95E-09	1.25E-07	9.18E-08	0.22
564470_4183530	564470	4183530	4.96E-04	4.04E-04	4.00E-04	0.00E+00	1.48E-03	2.57E-03	3.66E-04	8.50E-04	potential residence	6.73E-09	1.41E-07	1.19E-07	0.27
564510_4183530	564510	4183530	7.19E-04	5.56E-04	5.52E-04	0.00E+00	2.99E-03	5.17E-03	7.34E-04	1.71E-03	potential residence	9.74E-09	1.98E-07	2.37E-07	0.45
564550_4183530	564550	4183530	8.15E-04	7.11E-04	7.02E-04	0.00E+00	4.07E-05	8.03E-05	2.05E-05	2.03E-05	Building D	1.11E-08	2.43E-07	7.59E-09	0.26
564570_4183530	564570	4183530	9.51E-04	8.55E-04	8.43E-04	0.00E+00	3.39E-05	6.69E-05	1.71E-05	1.69E-05	Building D	1.29E-08	2.89E-07	7.75E-09	0.31
564590_4183530	564590	4183530	1.15E-03	1.05E-03	1.04E-03	0.00E+00	3.10E-05	6.11E-05	1.56E-05	1.55E-05	Building C	1.56E-08	3.54E-07	8.55E-09	0.38
564610_4183530	564610	4183530	1.43E-03	1.32E-03	1.30E-03	0.00E+00	3.01E-05	5.95E-05	1.52E-05	1.50E-05	Building C	1.94E-08	4.44E-07	9.96E-09	0.47
564630_4183530	564630	4183530	1.84E-03	1.72E-03	1.70E-03	0.00E+00	3.09E-05	6.10E-05	1.56E-05	1.54E-05	Building C	2.50E-08	5.75E-07	1.22E-08	0.61
564650_4183530	564650	4183530	2.57E-03	2.42E-03	2.38E-03	0.00E+00	3.61E-05	7.13E-05	1.83E-05	1.80E-05	Building C	3.49E-08	8.06E-07	1.64E-08	0.86
564710_4183530	564710	4183530	1.83E-04	6.57E-05	6.78E-05	0.00E+00	1.13E-02	1.95E-02	2.72E-03	6.49E-03	Building B	2.49E-09	3.31E-08	8.84E-07	0.92
564730_4183530	564730	4183530	1.37E-04	4.91E-05	5.06E-05	0.00E+00	8.72E-03	1.50E-02	2.10E-03	5.01E-03	Building B	1.86E-09	2.47E-08	6.82E-07	0.71
564750_4183530	564750	4183530	1.09E-04	3.90E-05	4.02E-05	0.00E+00	6.90E-03	1.19E-02	1.66E-03	3.96E-03	Block 1	1.47E-09	1.96E-08	5.40E-07	0.56
564770_4183530	564770	4183530	8.92E-05	3.20E-05	3.30E-05	0.00E+00	5.60E-03	9.66E-03	1.35E-03	3.21E-03	Block 1	1.21E-09	1.61E-08	4.38E-07	0.46
564790_4183530	564790	4183530	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00E+00	0.00E+00	0.00E+00	0.00
564290_4183550	564290	4183550	1.99E-04	1.64E-04	1.62E-04	0.00E+00	3.14E-04	5.44E-04	7.91E-05	1.79E-04	potential residence	2.70E-09	5.71E-08	2.56E-08	0.09
564310_4183550	564310	4183550	2.08E-04	1.74E-04	1.72E-04	0.00E+00	3.49E-04	6.04E-04	8.71E-05	1.99E-04	potential residence	2.82E-09	6.03E-08	2.84E-08	0.09
564330_4183550	564330	4183550	2.20E-04	1.87E-04	1.85E-04	0.00E+00	3.92E-04	6.79E-04	9.73E-05	2.24E-04	potential residence	2.98E-09	6.44E-08	3.18E-08	0.10
564350_4183550	564350	4183550	2.35E-04	2.02E-04	2.00E-04	0.00E+00	4.46E-04	7.71E-04	1.10E-04	2.55E-04	potential residence	3.19E-09	6.95E-08	3.61E-08	0.11
564370_4183550	564370	4183550	2.57E-04	2.21E-04	2.18E-04	0.00E+00	5.14E-04	8.89E-04	1.27E-04	2.94E-04	potential residence	3.48E-09	7.59E-08	4.15E-08	0.12
564390_4183550	564390	4183550	2.88E-04	2.45E-04	2.42E-04	0.00E+00	6.03E-04	1.04E-03	1.49E-04	3.45E-04	potential residence	3.91E-09	8.45E-08	4.87E-08	0.14
564430_4183550	564430	4183550	4.36E-04	3.31E-04	3.29E-04	0.00E+00	8.99E-04	1.56E-03	2.28E-04	5.13E-04	potential residence	5.91E-09	1.19E-07	7.27E-08	0.20
564470_4183550	564470	4183550	5.80E-04	4.30E-04	4.27E-04	0.00E+00	1.45E-03	2.52E-03	3.66E-04	8.29E-04	potential residence	7.87E-09	1.56E-07	1.17E-07	0.28
564490_4183550	564490	4183550	5.61E-04	4.55E-04	4.50E-04	0.00E+00	1.92E-03	3.33E-03	4.73E-04	1.10E-03	potential residence	7.61E-09	1.59E-07	1.53E-07	0.32
564510_4183550	564510	4183550	5.94E-04	5.05E-04	4.99E-04	0.00E+00	2.77E-03	4.78E-03	6.72E-04	1.59E-03	potential residence	8.05E-09	1.74E-07	2.20E-07	0.40
564530_4183550	564530	4183550	6.61E-04	5.81E-04	5.73E-04	0.00E+00	4.41E-03	7.61E-03	1.06E-03	2.53E-03	potential residence	8.97E-09	1.98E-07	3.48E-07	0.56
564550_4183550	564550	4183550	7.58E-04	6.80E-04	6.71E-04	0.00E+00	2.74E-05	5.42E-05	1.39E-05	1.37E-05	Block 2	1.03E-08	2.30E-07	6.21E-09	0.25
564570_4183550	564570	4183550	9.07E-04	8.26E-04	8.14E-04	0.00E+00	2.65E-05	5.23E-05	1.34E-05	1.32E-05	Building D	1.23E-08	2.78E-07	6.92E-09	0.30
564590_4183550	564590	4183550	1.11E-03	1.02E-03	1.01E-03	0.00E+00	2.78E-05	5.48E-05	1.40E-05	1.39E-05	Building D	1.51E-08	3.44E-07	8.11E-09	0.37
564610_4183550	564610	4183550	1.41E-03	1.30E-03	1.28E-03	0.00E+00	3.28E-05	6.48E-05	1.66E-05	1.64E-05	Building C	1.92E-08	4.37E-07	1.01E-08	0.47
564630_4183550	564630	4183550	1.91E-03	1.76E-03	1.73E-03	0.00E+00	4.76E-05	9.39E-05	2.40E-05	2.38E-05	Block 2	2.59E-08	5.91E-07	1.39E-08	0.63

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	∑R1*C_{DPM} 3rd Trimester	0<2	2<16	Total
564690_418355C	564690	4183550	1.30E-04	4.66E-05	4.81E-05	0.00E+00	1.15E-02	1.98E-02	2.76E-03	6.59E-03	Block 1	1.76E-09	2.35E-08	8.97E-07	0.92
564710_418355C	564710	4183550	1.05E-04	3.75E-05	3.87E-05	0.00E+00	9.04E-03	1.56E-02	2.17E-03	5.19E-03	Building B	1.42E-09	1.89E-08	7.07E-07	0.73
564730_418355C	564730	4183550	8.78E-05	3.15E-05	3.25E-05	0.00E+00	7.30E-03	1.26E-02	1.75E-03	4.19E-03	Block 1	1.19E-09	1.59E-08	5.71E-07	0.59
564750_418355C	564750	4183550	7.44E-05	2.67E-05	2.75E-05	0.00E+00	5.96E-03	1.03E-02	1.43E-03	3.42E-03	Building A	1.01E-09	1.34E-08	4.66E-07	0.48
564770_418355C	564770	4183550	6.41E-05	2.30E-05	2.37E-05	0.00E+00	4.95E-03	8.53E-03	1.19E-03	2.84E-03	Building A	8.69E-10	1.16E-08	3.87E-07	0.40
564790_418355C	564790	4183550	5.68E-05	2.04E-05	2.10E-05	0.00E+00	4.21E-03	7.27E-03	1.01E-03	2.42E-03	Building A	7.70E-10	1.03E-08	3.30E-07	0.34
564250_418357C	564250	4183570	1.72E-04	1.40E-04	1.39E-04	0.00E+00	2.49E-04	4.32E-04	6.32E-05	1.42E-04	potential residence	2.33E-09	4.90E-08	2.04E-08	0.07
564270_418357C	564270	4183570	1.77E-04	1.48E-04	1.46E-04	0.00E+00	2.72E-04	4.72E-04	6.84E-05	1.55E-04	potential residence	2.40E-09	5.13E-08	2.22E-08	0.08
564290_418357C	564290	4183570	1.85E-04	1.57E-04	1.55E-04	0.00E+00	3.00E-04	5.21E-04	7.49E-05	1.72E-04	potential residence	2.51E-09	5.41E-08	2.45E-08	0.08
564310_418357C	564310	4183570	1.95E-04	1.68E-04	1.66E-04	0.00E+00	3.34E-04	5.79E-04	8.28E-05	1.91E-04	potential residence	2.64E-09	5.76E-08	2.72E-08	0.09
564330_418357C	564330	4183570	2.07E-04	1.80E-04	1.78E-04	0.00E+00	3.75E-04	6.49E-04	9.26E-05	2.15E-04	potential residence	2.81E-09	6.17E-08	3.04E-08	0.09
564350_418357C	564350	4183570	2.23E-04	1.96E-04	1.93E-04	0.00E+00	4.26E-04	7.38E-04	1.05E-04	2.44E-04	potential residence	3.03E-09	6.67E-08	3.45E-08	0.10
564370_418357C	564370	4183570	2.43E-04	2.13E-04	2.11E-04	0.00E+00	4.90E-04	8.48E-04	1.20E-04	2.81E-04	potential residence	3.30E-09	7.28E-08	3.96E-08	0.12
564390_418357C	564390	4183570	2.70E-04	2.35E-04	2.32E-04	0.00E+00	5.73E-04	9.91E-04	1.41E-04	3.28E-04	potential residence	3.66E-09	8.04E-08	4.62E-08	0.13
564430_418357C	564430	4183570	3.88E-04	3.10E-04	3.07E-04	0.00E+00	8.41E-04	1.46E-03	2.11E-04	4.81E-04	potential residence	5.26E-09	1.09E-07	6.79E-08	0.18
564450_418357C	564450	4183570	4.18E-04	3.41E-04	3.37E-04	0.00E+00	1.03E-03	1.79E-03	2.56E-04	5.92E-04	potential residence	5.66E-09	1.19E-07	8.32E-08	0.21
564470_418357C	564470	4183570	4.43E-04	3.74E-04	3.70E-04	0.00E+00	1.31E-03	2.26E-03	3.21E-04	7.49E-04	potential residence	6.01E-09	1.29E-07	1.05E-07	0.24
564490_418357C	564490	4183570	4.81E-04	4.18E-04	4.13E-04	0.00E+00	1.74E-03	3.00E-03	4.22E-04	9.95E-04	potential residence	6.52E-09	1.43E-07	1.38E-07	0.29
564510_418357C	564510	4183570	5.35E-04	4.75E-04	4.69E-04	0.00E+00	2.44E-03	4.20E-03	5.88E-04	1.40E-03	potential residence	7.26E-09	1.61E-07	1.93E-07	0.36
564530_418357C	564530	4183570	6.10E-04	5.50E-04	5.43E-04	0.00E+00	3.61E-03	6.23E-03	8.69E-04	2.07E-03	potential residence	8.28E-09	1.86E-07	2.85E-07	0.48
564550_418357C	564550	4183570	7.15E-04	6.51E-04	6.42E-04	0.00E+00	5.79E-03	9.98E-03	1.39E-03	3.32E-03	potential residence	9.70E-09	2.19E-07	4.56E-07	0.68
564570_418357C	564570	4183570	8.62E-04	7.86E-04	7.75E-04	0.00E+00	2.49E-05	4.92E-05	1.26E-05	1.24E-05	Building D	1.17E-08	2.65E-07	6.56E-09	0.28
564590_418357C	564590	4183570	1.10E-03	9.88E-04	9.75E-04	0.00E+00	4.14E-05	8.18E-05	2.09E-05	2.07E-05	Block 2	1.50E-08	3.35E-07	9.17E-09	0.36
564690_418357C	564690	4183570	8.11E-05	2.91E-05	3.00E-05	0.00E+00	7.58E-03	1.31E-02	1.82E-03	4.35E-03	Block 1	1.10E-09	1.47E-08	5.93E-07	0.61
564710_418357C	564710	4183570	6.84E-05	2.45E-05	2.53E-05	0.00E+00	6.31E-03	1.09E-02	1.52E-03	3.62E-03	Block 1	9.28E-10	1.24E-08	4.93E-07	0.51
564730_418357C	564730	4183570	6.12E-05	2.19E-05	2.27E-05	0.00E+00	5.46E-03	9.41E-03	1.31E-03	3.13E-03	Building A	8.30E-10	1.11E-08	4.27E-07	0.44
564750_418357C	564750	4183570	5.40E-05	1.94E-05	2.00E-05	0.00E+00	4.66E-03	8.03E-03	1.12E-03	2.67E-03	Building A	7.32E-10	9.75E-09	3.64E-07	0.37
564770_418357C	564770	4183570	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.02E-03	6.94E-03	9.66E-04	2.31E-03	Building A	6.55E-10	8.72E-09	3.15E-07	0.32
564230_418359C	564230	4183590	1.52E-04	1.26E-04	1.25E-04	0.00E+00	2.18E-04	3.79E-04	5.51E-05	1.24E-04	potential residence	2.06E-09	4.39E-08	1.79E-08	0.06
564250_418359C	564250	4183590	1.57E-04	1.33E-04	1.32E-04	0.00E+00	2.37E-04	4.11E-04	5.94E-05	1.35E-04	potential residence	2.14E-09	4.60E-08	1.94E-08	0.07
564270_418359C	564270	4183590	1.65E-04	1.41E-04	1.40E-04	0.00E+00	2.60E-04	4.50E-04	6.47E-05	1.49E-04	potential residence	2.23E-09	4.86E-08	2.12E-08	0.07
564290_418359C	564290	4183590	1.73E-04	1.51E-04	1.49E-04	0.00E+00	2.87E-04	4.97E-04	7.10E-05	1.64E-04	potential residence	2.35E-09	5.16E-08	2.34E-08	0.08
564310_418359C	564310	4183590	1.84E-04	1.62E-04	1.59E-04	0.00E+00	3.19E-04	5.52E-04	7.87E-05	1.83E-04	potential residence	2.49E-09	5.51E-08	2.59E-08	0.08
564330_418359C	564330	4183590	1.97E-04	1.74E-04	1.72E-04	0.00E+00	3.58E-04	6.19E-04	8.79E-05	2.05E-04	potential residence	2.67E-09	5.92E-08	2.90E-08	0.09
564350_418359C	564350	4183590	2.12E-04	1.88E-04	1.86E-04	0.00E+00	4.06E-04	7.02E-04	9.94E-05	2.33E-04	potential residence	2.87E-09	6.40E-08	3.29E-08	0.10
564370_418359C	564370	4183590	2.31E-04	2.06E-04	2.03E-04	0.00E+00	4.66E-04	8.06E-04	1.14E-04	2.67E-04	potential residence	3.13E-09	6.98E-08	3.77E-08	0.11
564390_418359C	564390	4183590	2.54E-04	2.26E-04	2.23E-04	0.00E+00	5.43E-04	9.38E-04	1.32E-04	3.11E-04	potential residence	3.44E-09	7.67E-08	4.38E-08	0.12
564410_418359C	564410	4183590	2.82E-04	2.50E-04	2.47E-04	0.00E+00	6.40E-04	1.11E-03	1.56E-04	3.67E-04	potential residence	3.82E-09	8.50E-08	5.16E-08	0.14
564430_418359C	564430	4183590	3.15E-04	2.78E-04	2.75E-04	0.00E+00	7.71E-04	1.33E-03	1.88E-04	4.42E-04	potential residence	4.27E-09	9.47E-08	6.20E-08	0.16
564450_418359C	564450	4183590	3.50E-04	3.10E-04	3.06E-04	0.00E+00	9.47E-04	1.64E-03	2.30E-04	5.43E-04	potential residence	4.75E-09	1.05E-07	7.58E-08	0.19
564470_418359C	564470	4183590	3.87E-04	3.46E-04	3.42E-04	0.00E+00	1.19E-03	2.05E-03	2.87E-04	6.80E-04	potential residence	5.25E-09	1.17E-07	9.47E-08	0.22
564490_418359C	564490	4183590	4.34E-04	3.92E-04	3.86E-04	0.00E+00	1.54E-03	2.66E-03	3.72E-04	8.84E-04	potential residence	5.88E-09	1.32E-07	1.23E-07	0.26
564510_418359C	564510	4183590	4.91E-04	4.47E-04	4.41E-04	0.00E+00	2.05E-03	3.54E-03	4.95E-04	1.18E-03	potential residence	6.66E-09	1.51E-07	1.63E-07	0.32
564530_418359C	564530	4183590	5.68E-04	5.21E-04	5.13E-04	0.00E+00	2.82E-03	4.86E-03	6.78E-04	1.62E-03	potential residence	7.70E-09	1.75E-07	2.23E-07	0.41
564710_418359C	564710	4183590	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.28E-03	7.38E-03	1.03E-03	2.46E-03	Block 1	6.55E-10	8.72E-09	3.35E-07	0.34
564730_418359C	564730	4183590	4.42E-05	1.58E-05	1.64E-05	0.00E+00	3.84E-03	6.63E-03	9.23E-04	2.21E-03	Building A	5.99E-10	7.98E-09	3.00E-07	0.31
564230_418361C	564230	4183610	1.40E-04	1.20E-04	1.19E-04	0.00E+00	2.08E-04	3.61E-04	5.19E-05	1.19E-04	potential residence	1.90E-09	4.13E-08	1.70E-08	0.06
564250_418361C	564250	4183610	1.46E-04	1.27E-04	1.26E-04	0.00E+00	2.26E-04	3.92E-04	5.62E-05	1.30E-04	potential residence	1.99E-09	4.36E-08	1.85E-08	0.06
564270_418361C	564270	4183610	1.54E-04	1.36E-04	1.34E-04	0.00E+00	2.48E-04	4.30E-04	6.13E-05	1.42E-04	potential residence	2.09E-09	4.62E-08	2.02E-08	0.07
564290_418361C	564290	4183610	1.64E-04	1.45E-04	1.43E-04	0.00E+00	2.74E-04	4.74E-04	6.74E-05	1.57E-04	potential residence	2.22E-09	4.93E-08	2.23E-08	0.07
564310_418361C	564310	4183610	1.74E-04	1.55E-04	1.53E-04	0.00E+00	3.05E-04	5.27E-04	7.48E-05	1.75E-04	potential residence	2.36E-09	5.28E-08	2.48E-08	0.08
564330_418361C	564330	4183610	1.87E-04	1.68E-04	1.65E-04	0.00E+00	3.42E-04	5.91E-04	8.36E-05	1.96E-04	potential residence	2.53E-09	5.68E-08	2.77E-08	0.09
564350_418361C	564350	4183610	2.02E-04	1.82E-04	1.79E-04	0.00E+00	3.87E-04	6.68E-04	9.44E-05	2.22E-04	potential residence	2.74E-09	6.14E-08	3.13E-08	0.10
564370_418361C	564370	4183610	2.19E-04	1.98E-04	1.95E-04	0.00E+00	4.42E-04	7.64E-04	1.08E-04	2.53E-04	potential residence	2.97E-09	6.68E-08	3.57E-08	0.11
564390_418361C	564390	4183610	2.39E-04	2.16E-04	2.13E-04	0.00E+00	5.10E-04	8.82E-04	1.24E-04	2.93E-04	potential residence	3.24E-09	7.30E-08	4.12E-08	0.12
564410_418361C	564410	4183610	2.62E-04	2.37E-04	2.34E-04	0.00E+00	5.98E-04	1.03E-03	1.45E-04	3.43E-04	potential residence	3.56E-09	8.01E-08	4.81E-08	0.13
564430_418361C	564430	4183610	2.90E-04	2.63E-04	2.59E-04	0.00E+00	7.15E-04	1.23E-03	1.73E-04	4.10E-04	potential residence	3.93E-09	8.88E-08	5.74E-08	0.15
564450_418361C	564450	4183610	3.22E-04	2.93E-04	2.89E-04	0.00E+00	8.71E-04	1.50E-03	2.11E-04	4.99E-04	potential residence	4.37E-09	9.89E-08	6.97E-08	0.17
564470_418361C	564470	4183610	3.58E-04	3.28E-04	3.23E-04	0.00E+00	1.07E-03	1.85E-03	2.59E-04	6.14E-04	potential residence	4.86E-09	1.10E-07	8.56E-08	0.20
564490_418361C	564490	4183610	4.04E-04	3.71E-04	3.66E-04	0.00E+00	1.35E-03	2.33E-03	3.26E-04	7.74E-04	potential residence	5.48E-09	1.25E-07	1.08E-07	0.24
564510_418361C	564510	4183610	4.59E-04	4.24E-04	4.18E-04	0.00E+00	1.71E-03	2.95E-03	4.12E-04	9.82E-04	potential residence	6.23E-09	1.42E-07	1.36E-07	0.28
564750_418361C	564750	4183610	7.25E-03	6.98E-03	6.87E-03	0.00E+00	2.48E-03	4.28E-03	5.96E-04	1.42E-03	potential residence	9.84E-08	2.31E-06	2.32E-07	2.64
564770_418361C	564770	4183610	7.07E-03	6.80E-03	6.70E-03	0.00E+00	2.29E-03	3.95E-03	5.50E-04	1.31E-03	potential residence	9.59E-08	2.25E-06	2.16E-07	2.57
564830_418361C	564830	4183610	5.49E-03	5.28E-03	5.20E-03	0.00E+00	1.81E-03	3.13E-03	4.36E-04	1.04E-03	potential residence	7.44E-08	1.75E-06	1.70E-07	1.99
564250_418363C	564250	4183630	1.38E-04	1.22E-04	1.21E-04	0.00E+00	2.17E-04	3.76E-04	5.35E-05	1.24E-04	potential residence	1.87E-09	4.16E-08	1.77E-08	0.06
564270_418363C	564270	4183630	1.46E-04	1.31E-04	1.29E-04	0.00E+00	2.38E-04	4.12E-04	5.84E-05	1.36E-04	potential residence	1.98E-09	4.43E-08	1.94E-08	0.07
564290_418363C	564290	4183630	1.55E-04	1.40E-04	1.38E-04	0.00E+00	2.63E-04	4.54E-04	6.43E-05	1.50E-04	potential residence	2.11E-09	4.73E-08	2.14E-08	0.07
564310_418363C	564310	4183630	1.66E-04	1.50E-04	1.48E-04	0.00E+00	2.92E-04	5.04E-04	7.13E-05	1.67E-04	potential residence	2.25E-09	5.07E-08	2.37E-08	0.08
564330_418363C	564330	4183630	1.78E-04	1.62E-04	1.59E-04	0.00E+00	3.27E-04	5.65E-04	7.97E-05	1.87E-04	potential residence	2.42E-09	5.45E-08	2.65E-08	0.08
564350_418363C	564350	4183630	1.92E-04	1.74E-04	1.72E-04	0.00E+00	3.67E-04	6.35E-04	8.94E-05	2.11E-04	potential residence	2.60E-09	5.88E-08	2.97E-08	0.09
564370_418363C	564370	4183630	2.08E-04	1.89E-04	1.87E-04	0.00E+00	4.19E-04	7.23E-04	1.02E-04	2.40E-04	potential residence	2.82E-09	6.38E-08	3.38E-08	0.10
564390_418363C	564390	4183630	2.27E-04	2.07E-04	2.04E-04	0.00E+00	4.82E-04	8.33E-04	1.17E-04	2.77E-04	potential residence	3.07E-09	6.97E-08	3.89E-08	0.11
564410_418363C	564410	4183630	2.40E-04	2.19E-04	2.16E-04	0.00E+00	5.60E-04	9.66E-04	1.36E-04	3.21E-04	potential residence	3.25E-09	7.38E-08	4.50E-08	0.12
564430_418363C	564430	4183630	2.64E-04	2.43E-04	2.39E-04	0.00E+00	6.63E-04	1.14E-03	1.60E-04	3.80E-04	potential residence	3.59E-09	8.16E-08	5.32E-08	0.14
564450_418363C	564450	4183630	3.03E-04	2.79E-04	2.75E-04	0.00E+00	7.95E-04	1.37E-03	1.92E-04	4.56E-04	potential residence	4.11E-09	9.37E-08	6.38E-08	0.16
564470_418363C	564470	4183630	3.38E-04	3.12E-04	3.08E-04	0.00E+00	9.60E-04	1.66E-03	2.32E-04	5.51E-04	potential residence	4.58E-09	1.05E-07	7.68E-08	0.19
564690_418363C	564690	4183630	2.52E-03	2.42E-03	2.38E-03	0.00E+00	2.17E-03	3.74E-03	5.21E-04	1.25E-03	potential residence	3.42E-08	8.01E-07	1.83E-07	1.02
564750_418363C	564750	4183630	3.89E-03	3.74E-03	3.68E-03	0.00E+00	1.82E-03	3.13E-03	4.37E-04	1.04E-03	potential residence	5.28E-08	1.24E-06	1.62E-07	1.45
564770_418363C	564770	4183630	3.97E-03	3.82E-03	3.76E-03	0.00E+00	1.71E-03	2.95E-03	4.11E-04	9.80E-04	potential residence	5.38E-08	1.26E-06	1.54E-07	1.47
564790_418363C	564790	4183630	3.93E-03	3.78E-03	3.72E-03	0.00E+00	1.61E-03	2.78E-03	3.88E-04	9.26E-04	potential residence	5.33E-08	1.25E-06	1.47E-07	1.45
564810_418363C	564810	4183630	3.78E-03	3.63E-03	3.58E-03	0.00E+00	1.52E-03	2.63E-03	3.66E-04	8.74E-04	potential residence	5.13E-08	1.20E-06	1.39E-07	1.39
564830_418363C	564830	4183630	3.55E-03	3.42E-03	3.36E-03	0.00E+00	1.44E-03	2.48E-03	3.45E-04	8.24E-04	potential residence	4.82E-08	1.13E-06	1.31E-07	1.31
564890_418363C	564890	4183630	2.69E-03	2.58E-03	2.54E-03	0.00E+00	1.18E-03	2.04E-03	2.84E-04	6.78E-04	potential residence	3.65E-08	8.56E-07	1.06E-07	1.00
564910_418363C	564910	4183630	2.44E-03	2.35E-03	2.31E-03	0.00E+00	1.11E-03	1.91E-03	2.66E-04	6.36E-04	potential residence	3.31E-08	7.78E-07	9.94E-08	0.91
564250_418365C	564250	4183650	1.31E-04	1.18E-04	1.16E-04	0.00E+00	2.09E-04	3.61E-04	5.11E-05	1.20E-04	potential residence	1.78E-09	3.99E-08	1.70E-08	0.06
564270_418365C	564270	4183650	1.39E-04	1.26E-04	1.24E-04	0.00E+00	2.29E-04	3.95E-04	5.59E-05	1.31E-04	potential residence	1.88E-09	4.25E-08	1.86E-08	0.06
564290_418365C	564290	4183650	1.48E-04	1.34E-04	1.33E-04	0.00E+00	2.52E-04	4.35E-04	6.14E-05	1.44E-04	potential residence	2.01E-09	4.53E-08	2.05E-08	0.07
564310_418365C	564310	4183650	1.58E-04	1.44E-04	1.42E-04	0.00E+00	2.79E-04	4.82E-04	6.80E-05	1.60E-04	potential residence	2.15E-09	4.86E-08	2.27E-08	0.07
564330_418365C	564330	4183650	1.70E-04	1.56E-04	1.53E-04	0.00E+00	3.13E-04	5.40E-04	7.60E-05	1.79E-04	potential residence	2.31E-09	5.24E-08	2.53E-08	0.08
564350_418365C	564350	4183650	1.83E-04	1.68E-04	1.66E-04	0.00E+00	3.51E-04	6.06E-04	8.52E-05	2.01E-04	potential residence	2.48E-09	5.65E-08	2.84E-08	0.09
564370_418365C	564370	4183650	1.92E-04	1.76E-04	1.74E-04	0.00E+00	3.97E-04	6.85E-04	9.62E-05	2.27E-04	potential residence	2.60E-09	5.93E-08	3.20E-08	0.09
564390_418365C	564390	4183650	2.09E-04	1.93E-04	1.90E-04	0.00E+00	4.56E-04	7.87E-04	1.10E-04	2.61E-04	potential residence	2.84E-09	6.47E-08	3.67E-08	0.10
564410_418365C	564410	4183650	2.29E-04	2.11E-04	2.08E-04	0.00E+00	5.27E-04	9.10E-04	1.28E-04	3.02E-04	potential residence	3.10E-09	7.08E-08	4.24E-08	0.12
564430_418365C	564430	4183650	2.51E-04	2.32E-04	2.29E-04	0.00E+00	6.16E-04	1.06E-03	1.49E-04	3.53E-04	potential residence	3.41E-09	7.79E-08	4.94E-08	0.13
564450_418365C	564450	4183650	2.77E-04	2.57E-04	2.54E-04	0.00E+00	7.22E-04	1.25E-03	1.74E-04	4.14E-04	potential residence	3.76E-09	8.62E-08	5.79E-08	0.15
564670_418365C	564670	4183650	1.55E-03	1.48E-03	1.46E-03	0.00E+00	1.62E-03	2.79E-03	3.89E-04	9.30E-04	potential residence	2.10E-08	4.90E-07	1.35E-07	0.65
564690_418365C	564690	4183650	1.80E-03	1.73E-03	1.70E-03	0.00E+00	1.57E-03	2.71E-03	3.77E-04	9.01E-04	potential residence	2.45E-08	5.73E-07	1.32E-07	0.73
564710_418365C	564710	4183650	2.14E-03	2.05E-03	2.02E-03	0.00E+00	1.51E-03	2.61E-03	3.63E-04	8.68E-04	potential residence	2.90E-08	6.81E-07	1.29E-07	0.84
564730_418365C	564730	4183650	2.32E-03	2.23E-03	2.20E-03	0.00E+00	1.44E-03	2.48E-03	3.46E-04	8.26E-04	potential residence	3.15E-08	7.39E-07	1.25E-07	0.90
564750_418365C	564750	4183650	2.45E-03	2.35E-03	2.32E-03	0.00E+00	1.37E-03	2.36E-03	3.28E-04	7.84E-04	potential residence	3.33E-08	7.80E-07	1.20E-07	0.93
564770_418365C	564770	4183650	2.53E-03	2.43E-03	2.39E-03	0.00E+00	1.30E-03	2.25E-03	3.14E-04	7.49E-04	potential residence	3.43E-08	8.06E-07	1.15E-07	0.96
564790_418365C	564790	4183650	2.54E-03	2.44E-03	2.40E-03	0.00E+00	1.25E-03	2.15E-03	3.00E-04	7.16E-04	potential residence	3.45E-08	8.09E-07	1.11E-07	0.95
564810_418365C	564810	4183650	2.49E-03	2.39E-03	2.35E-03	0.00E+00	1.19E-03	2.05E-03	2.86E-04	6.84E-04	potential residence	3.38E-08	7.93E-07	1.06E-07	0.93
564830_418365C	564830	4183650	2.40E-03	2.30E-03	2.27E-03	0.00E+00	1.14E-03	1.96E-03	2.73E-04	6.52E-04	potential residence	3.25E-08	7.63E-07	1.01E-07	0.90

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type		$\sum R1 * C_{DPM}$			
			2022	2023	2024	2025	2026	2027	2028	2029			3rd Trimester	0<2	2<16	Total
564850_4183650	564850	4183650	2.26E-03	2.17E-03	2.14E-03	0.00E+00	1.08E-03	1.86E-03	2.60E-04	6.20E-04	potential residence		3.07E-08	7.20E-07	9.63E-08	0.85
564870_4183650	564870	4183650	2.12E-03	2.04E-03	2.01E-03	0.00E+00	1.03E-03	1.77E-03	2.47E-04	5.90E-04	potential residence		2.88E-08	6.76E-07	9.15E-08	0.80
564890_4183650	564890	4183650	1.97E-03	1.89E-03	1.86E-03	0.00E+00	9.74E-04	1.68E-03	2.34E-04	5.59E-04	potential residence		2.67E-08	6.26E-07	8.64E-08	0.74
564910_4183650	564910	4183650	1.83E-03	1.76E-03	1.73E-03	0.00E+00	9.12E-04	1.57E-03	2.19E-04	5.24E-04	potential residence		2.48E-08	5.83E-07	8.09E-08	0.69
564270_4183670	564270	4183670	1.30E-04	1.19E-04	1.17E-04	0.00E+00	2.20E-04	3.80E-04	5.35E-05	1.26E-04	potential residence		1.76E-09	3.99E-08	1.79E-08	0.06
564290_4183670	564290	4183670	1.38E-04	1.27E-04	1.25E-04	0.00E+00	2.42E-04	4.18E-04	5.88E-05	1.39E-04	potential residence		1.88E-09	4.26E-08	1.96E-08	0.06
564310_4183670	564310	4183670	1.52E-04	1.39E-04	1.37E-04	0.00E+00	2.68E-04	4.63E-04	6.51E-05	1.54E-04	potential residence		2.06E-09	4.68E-08	2.17E-08	0.07
564330_4183670	564330	4183670	1.59E-04	1.46E-04	1.44E-04	0.00E+00	2.99E-04	5.16E-04	7.25E-05	1.71E-04	potential residence		2.15E-09	4.90E-08	2.42E-08	0.08
564350_4183670	564350	4183670	1.71E-04	1.57E-04	1.55E-04	0.00E+00	3.35E-04	5.79E-04	8.12E-05	1.92E-04	potential residence		2.32E-09	5.28E-08	2.71E-08	0.08
564370_4183670	564370	4183670	1.84E-04	1.70E-04	1.67E-04	0.00E+00	3.78E-04	6.52E-04	9.15E-05	2.17E-04	potential residence		2.49E-09	5.70E-08	3.05E-08	0.09
564390_4183670	564390	4183670	2.00E-04	1.85E-04	1.83E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence		2.71E-09	6.21E-08	3.47E-08	0.10
564410_4183670	564410	4183670	2.18E-04	2.02E-04	1.99E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	potential residence		2.96E-09	6.78E-08	3.96E-08	0.11
564430_4183670	564430	4183670	2.39E-04	2.22E-04	2.19E-04	0.00E+00	5.65E-04	9.75E-04	1.36E-04	3.24E-04	potential residence		3.24E-09	7.44E-08	4.54E-08	0.12
564450_4183670	564450	4183670	2.63E-04	2.45E-04	2.42E-04	0.00E+00	6.47E-04	1.12E-03	1.56E-04	3.71E-04	potential residence		3.57E-09	8.21E-08	5.20E-08	0.14
564470_4183670	564470	4183670	2.93E-04	2.74E-04	2.70E-04	0.00E+00	7.39E-04	1.27E-03	1.78E-04	4.24E-04	potential residence		3.97E-09	9.15E-08	5.93E-08	0.15
564650_4183670	564650	4183670	1.06E-03	1.01E-03	9.93E-04	0.00E+00	1.19E-03	2.05E-03	2.85E-04	6.81E-04	potential residence		1.43E-08	3.35E-07	9.83E-08	0.45
564670_4183670	564670	4183670	1.21E-03	1.15E-03	1.14E-03	0.00E+00	1.21E-03	2.09E-03	2.92E-04	6.97E-04	potential residence		1.64E-08	3.83E-07	1.01E-07	0.50
564730_4183670	564730	4183670	1.63E-03	1.56E-03	1.54E-03	0.00E+00	1.11E-03	1.92E-03	2.67E-04	6.38E-04	potential residence		2.21E-08	5.17E-07	9.54E-08	0.63
564750_4183670	564750	4183670	1.69E-03	1.62E-03	1.60E-03	0.00E+00	1.06E-03	1.83E-03	2.55E-04	6.10E-04	potential residence		2.29E-08	5.38E-07	9.19E-08	0.65
564770_4183670	564770	4183670	1.75E-03	1.68E-03	1.65E-03	0.00E+00	1.02E-03	1.77E-03	2.46E-04	5.88E-04	potential residence		2.37E-08	5.57E-07	8.92E-08	0.67
564790_4183670	564790	4183670	1.76E-03	1.69E-03	1.66E-03	0.00E+00	9.83E-04	1.70E-03	2.36E-04	5.64E-04	potential residence		2.39E-08	5.60E-07	8.61E-08	0.67
564810_4183670	564810	4183670	1.75E-03	1.68E-03	1.65E-03	0.00E+00	9.46E-04	1.63E-03	2.27E-04	5.43E-04	potential residence		2.37E-08	5.56E-07	8.31E-08	0.66
564830_4183670	564830	4183670	1.70E-03	1.63E-03	1.61E-03	0.00E+00	9.08E-04	1.57E-03	2.18E-04	5.21E-04	potential residence		2.31E-08	5.41E-07	7.99E-08	0.64
564850_4183670	564850	4183670	1.68E-03	1.61E-03	1.58E-03	0.00E+00	8.77E-04	1.51E-03	2.11E-04	5.04E-04	potential residence		2.27E-08	5.33E-07	7.74E-08	0.63
564870_4183670	564870	4183670	1.57E-03	1.51E-03	1.49E-03	0.00E+00	8.30E-04	1.43E-03	2.00E-04	4.76E-04	potential residence		2.13E-08	5.00E-07	7.31E-08	0.59
564890_4183670	564890	4183670	1.48E-03	1.42E-03	1.40E-03	0.00E+00	7.93E-04	1.37E-03	1.91E-04	4.55E-04	potential residence		2.01E-08	4.71E-07	6.98E-08	0.56
564910_4183670	564910	4183670	1.40E-03	1.34E-03	1.32E-03	0.00E+00	7.62E-04	1.31E-03	1.83E-04	4.37E-04	potential residence		1.90E-08	4.45E-07	6.69E-08	0.53
564930_4183670	564930	4183670	1.31E-03	1.25E-03	1.23E-03	0.00E+00	7.33E-04	1.26E-03	1.76E-04	4.21E-04	potential residence		1.77E-08	4.15E-07	6.41E-08	0.50
564270_4183690	564270	4183690	1.24E-04	1.14E-04	1.13E-04	0.00E+00	2.12E-04	3.66E-04	5.14E-05	1.21E-04	potential residence		1.68E-09	3.84E-08	1.72E-08	0.06
564290_4183690	564290	4183690	1.32E-04	1.22E-04	1.20E-04	0.00E+00	2.33E-04	4.02E-04	5.65E-05	1.33E-04	potential residence		1.79E-09	4.09E-08	1.89E-08	0.06
564310_4183690	564310	4183690	1.42E-04	1.31E-04	1.29E-04	0.00E+00	2.57E-04	4.44E-04	6.24E-05	1.47E-04	potential residence		1.92E-09	4.39E-08	2.08E-08	0.07
564330_4183690	564330	4183690	1.52E-04	1.40E-04	1.38E-04	0.00E+00	2.86E-04	4.93E-04	6.92E-05	1.64E-04	potential residence		2.06E-09	4.71E-08	2.31E-08	0.07
564350_4183690	564350	4183690	1.64E-04	1.52E-04	1.49E-04	0.00E+00	3.19E-04	5.51E-04	7.73E-05	1.83E-04	potential residence		2.22E-09	5.08E-08	2.58E-08	0.08
564370_4183690	564370	4183690	1.77E-04	1.64E-04	1.62E-04	0.00E+00	3.58E-04	6.18E-04	8.66E-05	2.06E-04	potential residence		2.40E-09	5.49E-08	2.89E-08	0.09
564390_4183690	564390	4183690	1.91E-04	1.78E-04	1.75E-04	0.00E+00	4.03E-04	6.96E-04	9.74E-05	2.31E-04	potential residence		2.60E-09	5.96E-08	3.25E-08	0.09
564410_4183690	564410	4183690	2.09E-04	1.94E-04	1.92E-04	0.00E+00	4.55E-04	7.85E-04	1.10E-04	2.61E-04	potential residence		2.83E-09	6.50E-08	3.67E-08	0.10
564430_4183690	564430	4183690	2.28E-04	2.13E-04	2.10E-04	0.00E+00	4.96E-04	8.57E-04	1.20E-04	2.85E-04	potential residence		3.09E-09	7.11E-08	4.00E-08	0.11
564450_4183690	564450	4183690	2.51E-04	2.35E-04	2.31E-04	0.00E+00	5.56E-04	9.59E-04	1.34E-04	3.19E-04	potential residence		3.40E-09	7.84E-08	4.47E-08	0.13
564470_4183690	564470	4183690	2.79E-04	2.62E-04	2.58E-04	0.00E+00	6.38E-04	1.10E-03	1.54E-04	3.66E-04	potential residence		3.78E-09	8.74E-08	5.13E-08	0.14
564570_4183690	564570	4183690	5.22E-04	4.95E-04	4.88E-04	0.00E+00	8.52E-04	1.47E-03	2.05E-04	4.89E-04	potential residence		7.07E-09	1.65E-07	6.93E-08	0.24
564590_4183690	564590	4183690	5.98E-04	5.68E-04	5.60E-04	0.00E+00	8.73E-04	1.51E-03	2.10E-04	5.01E-04	potential residence		8.10E-09	1.89E-07	7.14E-08	0.27
564650_4183690	564650	4183690	8.65E-04	8.26E-04	8.13E-04	0.00E+00	9.13E-04	1.57E-03	2.20E-04	5.24E-04	potential residence		1.17E-08	2.74E-07	7.59E-08	0.36
564670_4183690	564670	4183690	9.49E-04	9.07E-04	8.93E-04	0.00E+00	9.13E-04	1.57E-03	2.19E-04	5.24E-04	potential residence		1.29E-08	3.01E-07	7.63E-08	0.39
564730_4183690	564730	4183690	1.21E-03	1.16E-03	1.14E-03	0.00E+00	8.86E-04	1.53E-03	2.13E-04	5.09E-04	potential residence		1.64E-08	3.84E-07	7.56E-08	0.48
564750_4183690	564750	4183690	1.24E-03	1.19E-03	1.17E-03	0.00E+00	8.51E-04	1.47E-03	2.05E-04	4.88E-04	potential residence		1.68E-08	3.94E-07	7.30E-08	0.48
564770_4183690	564770	4183690	1.27E-03	1.22E-03	1.20E-03	0.00E+00	8.22E-04	1.42E-03	1.98E-04	4.72E-04	potential residence		1.73E-08	4.05E-07	7.09E-08	0.49
564790_4183690	564790	4183690	1.28E-03	1.23E-03	1.21E-03	0.00E+00	7.91E-04	1.36E-03	1.90E-04	4.54E-04	potential residence		1.74E-08	4.08E-07	6.86E-08	0.49
564810_4183690	564810	4183690	1.27E-03	1.22E-03	1.20E-03	0.00E+00	7.61E-04	1.31E-03	1.83E-04	4.37E-04	potential residence		1.73E-08	4.05E-07	6.61E-08	0.49
564830_4183690	564830	4183690	1.25E-03	1.20E-03	1.18E-03	0.00E+00	7.33E-04	1.26E-03	1.76E-04	4.20E-04	potential residence		1.70E-08	3.98E-07	6.38E-08	0.48
564850_4183690	564850	4183690	1.23E-03	1.18E-03	1.16E-03	0.00E+00	7.10E-04	1.22E-03	1.71E-04	4.08E-04	potential residence		1.66E-08	3.90E-07	6.19E-08	0.47
564870_4183690	564870	4183690	1.20E-03	1.15E-03	1.13E-03	0.00E+00	6.92E-04	1.19E-03	1.66E-04	3.97E-04	potential residence		1.62E-08	3.81E-07	6.03E-08	0.46
564890_4183690	564890	4183690	1.15E-03	1.10E-03	1.08E-03	0.00E+00	6.64E-04	1.15E-03	1.60E-04	3.81E-04	potential residence		1.56E-08	3.65E-07	5.79E-08	0.44
564910_4183690	564910	4183690	1.09E-03	1.05E-03	1.03E-03	0.00E+00	6.39E-04	1.10E-03	1.54E-04	3.66E-04	potential residence		1.48E-08	3.47E-07	5.56E-08	0.42
564930_4183690	564930	4183690	1.03E-03	9.87E-04	9.71E-04	0.00E+00	6.15E-04	1.06E-03	1.48E-04	3.53E-04	potential residence		1.40E-08	3.27E-07	5.35E-08	0.39
564290_4183710	564290	4183710	1.28E-04	1.18E-04	1.16E-04	0.00E+00	2.24E-04	3.87E-04	5.44E-05	1.29E-04	potential residence		1.73E-09	3.96E-08	1.82E-08	0.06
564310_4183710	564310	4183710	1.37E-04	1.27E-04	1.25E-04	0.00E+00	2.47E-04	4.27E-04	5.99E-05	1.42E-04	potential residence		1.85E-09	4.24E-08	2.01E-08	0.06
564330_4183710	564330	4183710	1.46E-04	1.36E-04	1.34E-04	0.00E+00	2.74E-04	4.72E-04	6.62E-05	1.57E-04	potential residence		1.99E-09	4.55E-08	2.22E-08	0.07
564350_4183710	564350	4183710	1.58E-04	1.47E-04	1.45E-04	0.00E+00	3.04E-04	5.24E-04	7.35E-05	1.74E-04	potential residence		2.14E-09	4.91E-08	2.46E-08	0.08
564370_4183710	564370	4183710	1.70E-04	1.58E-04	1.56E-04	0.00E+00	3.38E-04	5.83E-04	8.16E-05	1.94E-04	potential residence		2.30E-09	5.30E-08	2.73E-08	0.08
564390_4183710	564390	4183710	1.84E-04	1.71E-04	1.69E-04	0.00E+00	3.65E-04	6.30E-04	8.81E-05	2.09E-04	potential residence		2.49E-09	5.73E-08	2.95E-08	0.09
564410_4183710	564410	4183710	1.99E-04	1.86E-04	1.83E-04	0.00E+00	4.03E-04	6.95E-04	9.72E-05	2.31E-04	potential residence		2.70E-09	6.21E-08	3.25E-08	0.10
564430_4183710	564430	4183710	2.18E-04	2.04E-04	2.01E-04	0.00E+00	4.47E-04	7.71E-04	1.08E-04	2.56E-04	potential residence		2.95E-09	6.82E-08	3.61E-08	0.11
564450_4183710	564450	4183710	2.40E-04	2.26E-04	2.22E-04	0.00E+00	4.91E-04	8.47E-04	1.18E-04	2.82E-04	potential residence		3.26E-09	7.53E-08	3.96E-08	0.12
564470_4183710	564470	4183710	2.66E-04	2.50E-04	2.47E-04	0.00E+00	5.32E-04	9.18E-04	1.28E-04	3.05E-04	potential residence		3.61E-09	8.35E-08	4.30E-08	0.13
564490_4183710	564490	4183710	2.97E-04	2.80E-04	2.76E-04	0.00E+00	5.70E-04	9.84E-04	1.37E-04	3.27E-04	potential residence		4.03E-09	9.33E-08	4.61E-08	0.14
564530_4183710	564530	4183710	3.74E-04	3.55E-04	3.49E-04	0.00E+00	6.35E-04	1.10E-03	1.53E-04	3.65E-04	potential residence		5.08E-09	1.18E-07	5.16E-08	0.17
564550_4183710	564550	4183710	4.20E-04	3.98E-04	3.92E-04	0.00E+00	6.57E-04	1.13E-03	1.58E-04	3.77E-04	potential residence		5.70E-09	1.33E-07	5.36E-08	0.19
564570_4183710	564570	4183710	4.73E-04	4.50E-04	4.43E-04	0.00E+00	6.76E-04	1.17E-03	1.63E-04	3.88E-04	potential residence		6.42E-09	1.50E-07	5.53E-08	0.21
564590_4183710	564590	4183710	5.33E-04	5.07E-04	4.99E-04	0.00E+00	6.92E-04	1.19E-03	1.66E-04	3.97E-04	potential residence		7.23E-09	1.69E-07	5.68E-08	0.23
564650_4183710	564650	4183710	7.13E-04	6.81E-04	6.71E-04	0.00E+00	7.25E-04	1.25E-03	1.74E-04	4.16E-04	potential residence		9.68E-09	2.26E-07	6.04E-08	0.30
564670_4183710	564670	4183710	7.68E-04	7.34E-04	7.23E-04	0.00E+00	7.50E-04	1.29E-03	1.80E-04	4.31E-04	potential residence		1.04E-08	2.44E-07	6.27E-08	0.32
564690_4183710	564690	4183710	8.21E-04	7.85E-04	7.73E-04	0.00E+00	7.49E-04	1.29E-03	1.80E-04	4.30E-04	potential residence		1.11E-08	2.61E-07	6.28E-08	0.33
564710_4183710	564710	4183710	8.58E-04	8.21E-04	8.08E-04	0.00E+00	7.36E-04	1.27E-03	1.77E-04	4.23E-04	potential residence		1.16E-08	2.72E-07	6.20E-08	0.35
564730_4183710	564730	4183710	9.30E-04	8.90E-04	8.77E-04	0.00E+00	7.20E-04	1.24E-03	1.73E-04	4.13E-04	potential residence		1.26E-08	2.95E-07	6.11E-08	0.37
564750_4183710	564750	4183710	9.52E-04	9.12E-04	8.98E-04	0.00E+00	6.98E-04	1.20E-03	1.68E-04	4.01E-04	potential residence		1.29E-08	3.02E-07	5.95E-08	0.37
564770_4183710	564770	4183710	9.63E-04	9.23E-04	9.09E-04	0.00E+00	6.73E-04	1.16E-03	1.62E-04	3.86E-04	potential residence		1.31E-08	3.06E-07	5.76E-08	0.38
564790_4183710	564790	4183710	9.73E-04	9.33E-04	9.19E-04	0.00E+00	6.51E-04	1.12E-03	1.57E-04	3.74E-04	potential residence		1.32E-08	3.09E-07	5.60E-08	0.38
564810_4183710	564810	4183710	9.72E-04	9.31E-04	9.17E-04	0.00E+00	6.27E-04	1.08E-03	1.51E-04	3.60E-04	potential residence		1.32E-08	3.09E-07	5.41E-08	0.38
564830_4183710	564830	4183710	9.59E-04	9.19E-04	9.05E-04	0.00E+00	6.04E-04	1.04E-03	1.45E-04	3.47E-04	potential residence		1.30E-08	3.05E-07	5.23E-08	0.37
564850_4183710	564850	4183710	9.33E-04	8.94E-04	8.81E-04	0.00E+00	5.81E-04	1.00E-03	1.40E-04	3.34E-04	potential residence		1.27E-08	2.97E-07	5.03E-08	0.36
564870_4183710	564870	4183710	9.10E-04	8.72E-04	8.59E-04	0.00E+00	5.64E-04	9.73E-04	1.36E-04	3.24E-04	potential residence		1.23E-08	2.89E-07	4.89E-08	0.35
564890_4183710	564890	4183710	9.07E-04	8.70E-04	8.56E-04	0.00E+00	5.58E-04	9.63E-04	1.34E-04	3.20E-04	potential residence		1.23E-08	2.88E-07	4.84E-08	0.35
564910_4183710	564910	4183710	8.68E-04	8.32E-04	8.19E-04	0.00E+00	5.39E-04	9.29E-04	1.30E-04	3.09E-04	potential residence		1.18E-08	2.76E-07	4.67E-08	0.33
564930_4183710	564930	4183710	8.29E-04	7.95E-04	7.82E-04	0.00E+00	5.20E-04	8.98E-04	1.25E-04	2.99E-04	potential residence		1.12E-08	2.64E-07	4.50E-08	0.32
564950_4183710	564950	4183710	7.95E-04	7.61E-04	7.50E-04	0.00E+00	5.01E-04	8.63E-04	1.20E-04	2.87E-04	potential residence		1.08E-08	2.53E-07	4.33E-08	0.31
564310_4183730	564310	4183730	1.32E-04	1.23E-04	1.21E-04	0.00E+00	2.37E-04	4.09E-04	5.74E-05	1.36E-04	potential residence		1.79E-09	4.11E-08	1.92E-08	0.06
564330_4183730	564330	4183730	1.41E-04	1.31E-04	1.30E-04	0.00E+00	2.54E-04	4.38E-04	6.13E-05	1.45E-04	potential residence		1.91E-09	4.40E-08	2.06E-08	0.07
564350_4183730	564350	4183730	1.52E-04	1.42E-04	1.40E-04	0.00E+00	2.80E-04	4.82E-04	6.75E-05	1.60E-04	potential residence		2.06E-09	4.73E-08	2.26E-08	0.07
564370_4183730	564370	4183730	1.64E-04	1.54E-04	1.51E-04	0.00E+00	3.09E-04	5.33E-04	7.46E-05	1.77E-04	potential residence		2.23E-09	5.13E-08	2.50E-08	0.08
564390_4183730	564390	4183730	1.77E-04	1.66E-04	1.63E-04	0.00E+00	3.38E-04	5.83E-04	8.15E-05	1.94E-04	potential residence		2.40E-09	5.53E-08	2.73E-08	0.09
564410_4183730	564410	4183730	1.92E-04	1.80E-04	1.77E-04	0.00E+00	3.68E-04	6.36E-04	8.88E-05	2.11E-04	potential residence		2.60E-09	6.01E-08	2.98E-08	0.09
564430_4183730	564430	4183730	2.10E-04	1.98E-04	1.95E-04	0.00E+00	4.02E-04	6.93E-04	9.69E-05	2.31E-04	potential residence		2.85E-09	6.60E-08	3.25E-08	0.10
564450_4183730	564450	4183730	2.31E-04	2.18E-04	2.15E-04	0.00E+00	4.33E-04	7.48E-04	1.04E-04	2.49E-04	potential residence		3.14E-09	7.27E-08	3.51E-08	0.11
564470_4183730	564470	4183730	2.56E-04	2.41E-04	2.38E-04	0.00E+00	4.61E-04	7.95E-04	1.11E-04	2.65E-04	potential residence		3.47E-09	8.04E-08	3.74E-08	0.12
564490_4183730	564490	4183730	2.84E-04	2.68E-04	2.64E-04	0.00E+00	4.86E-04	8.38E-04	1.17E-04	2.79E-04	potential residence		3.85E-09	8.93E-08	3.95E-08	0.13
564510_4183730	564510	4183730	3.15E-04	2.98E-04	2.94E-04	0.00E+00	5.08E-04	8.76E-04	1.22E-04	2.91E-04	potential residence		4.27E-09	9.92E-08	4.13E-08	0.14
564530_4183730	564530	4183730	3.50E-04	3.32E-04	3.27E-04	0.00E+00	5.28E-04	9.10E-04	1.27E-04	3.03E-04	potential residence		4.75E-09	1.10E-07	4.31E-08	0.16
564550_4183730	564550	4183730	3.88E-04	3.68E-04	3.63E-04	0.00E+00	5.43E-04	9.36E-04	1.31E-04	3.11E-04	potential residence		5.26E-09	1.22E-07	4.44E-08	0.17
564570_4183730	564570	4183730	4.30E-04	4.09E-04	4.03E-04	0.00E+00	5.56E-04	9.58E-04	1.34E-04	3.19E-04	potential residence		5.83E-09	1.36E-07	4.57E-08	0.19
564590_4183730	564590	4183730	4.74E-04	4.52E-04	4.45E-04	0.00E+00	5.66E-04	9.76E-04	1.36E-04	3.25E-04	potential residence		6.43E-09	1.50E-07	4.67E-08	0.20
564610_4183730	564610	4183730	5.19E-04	4.95E-04	4.87E-04	0.00E+00	5.76E-04	9.94E-04	1.39E-04	3.31E-04	potential residence		7.04E-09	1.64E-07	4.77E-08	0.22
564630_4183730	564630	4183730	5.60E-04	5.35E-04	5.27E-04	0.00E+00	5.86E-04	1.01E-03	1.41E-04	3.36E-04	potential residence		7.60E-09	1.78E-07	4.87E-08	0.23
564650_4183730	564650	4183730	5.96E-04	5.69E-04	5.61E-04	0.00E+00	5.92E-04	1.02E-03	1.42E-04	3.40E-04	potential residence		8.09E-09	1.89E-07	4.94E-08	0.25
564670_4183730	564670	4183730	6.30E-04	6.02E-04	5.93E-04	0.00E+00	5.96E-04	1.03E-03	1.43E-04	3.42E-04	potential residence		8.54E-09	2.00E-07	4.99E-08	0.26

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	∑R1*C_{DPM} 3rd Trimester	0<2	2<16	Total
564690_418373C	564690	4183730	6.62E-04	6.33E-04	6.23E-04	0.00E+00	6.12E-04	1.05E-03	1.47E-04	3.51E-04	potential residence	8.98E-09	2.10E-07	5.13E-08	0.27
564710_418373C	564710	4183730	6.86E-04	6.56E-04	6.46E-04	0.00E+00	6.05E-04	1.04E-03	1.46E-04	3.47E-04	potential residence	9.30E-09	2.18E-07	5.09E-08	0.28
564730_418373C	564730	4183730	7.05E-04	6.75E-04	6.65E-04	0.00E+00	5.95E-04	1.03E-03	1.43E-04	3.41E-04	potential residence	9.57E-09	2.24E-07	5.02E-08	0.28
564750_418373C	564750	4183730	7.52E-04	7.20E-04	7.09E-04	0.00E+00	5.82E-04	1.00E-03	1.40E-04	3.34E-04	potential residence	1.02E-08	2.39E-07	4.94E-08	0.30
564770_418373C	564770	4183730	7.62E-04	7.30E-04	7.19E-04	0.00E+00	5.65E-04	9.75E-04	1.36E-04	3.24E-04	potential residence	1.03E-08	2.42E-07	4.82E-08	0.30
564790_418373C	564790	4183730	7.64E-04	7.32E-04	7.21E-04	0.00E+00	5.46E-04	9.41E-04	1.31E-04	3.13E-04	potential residence	1.04E-08	2.43E-07	4.67E-08	0.30
564810_418373C	564810	4183730	7.67E-04	7.35E-04	7.23E-04	0.00E+00	5.29E-04	9.12E-04	1.27E-04	3.03E-04	potential residence	1.04E-08	2.44E-07	4.53E-08	0.30
564830_418373C	564830	4183730	7.63E-04	7.31E-04	7.20E-04	0.00E+00	5.11E-04	8.82E-04	1.23E-04	2.93E-04	potential residence	1.03E-08	2.42E-07	4.39E-08	0.30
564850_418373C	564850	4183730	7.52E-04	7.20E-04	7.09E-04	0.00E+00	4.94E-04	8.52E-04	1.19E-04	2.84E-04	potential residence	1.02E-08	2.39E-07	4.26E-08	0.29
564870_418373C	564870	4183730	7.26E-04	6.96E-04	6.85E-04	0.00E+00	4.74E-04	8.18E-04	1.14E-04	2.72E-04	potential residence	9.85E-09	2.31E-07	4.09E-08	0.28
564890_418373C	564890	4183730	7.42E-04	7.11E-04	7.00E-04	0.00E+00	4.75E-04	8.19E-04	1.14E-04	2.73E-04	potential residence	1.01E-08	2.36E-07	4.10E-08	0.29
564910_418373C	564910	4183730	7.11E-04	6.81E-04	6.71E-04	0.00E+00	4.59E-04	7.93E-04	1.11E-04	2.64E-04	potential residence	9.64E-09	2.26E-07	3.96E-08	0.28
564930_418373C	564930	4183730	6.84E-04	6.55E-04	6.45E-04	0.00E+00	4.45E-04	7.67E-04	1.07E-04	2.55E-04	potential residence	9.27E-09	2.17E-07	3.84E-08	0.26
564950_418373C	564950	4183730	6.57E-04	6.29E-04	6.20E-04	0.00E+00	4.30E-04	7.41E-04	1.03E-04	2.47E-04	potential residence	8.91E-09	2.09E-07	3.70E-08	0.25
564330_418375C	564330	4183750	1.36E-04	1.27E-04	1.25E-04	0.00E+00	2.40E-04	4.14E-04	5.80E-05	1.38E-04	potential residence	1.85E-09	4.25E-08	1.95E-08	0.06
564350_418375C	564350	4183750	1.47E-04	1.37E-04	1.35E-04	0.00E+00	2.63E-04	4.54E-04	6.36E-05	1.51E-04	potential residence	1.99E-09	4.59E-08	2.14E-08	0.07
564370_418375C	564370	4183750	1.58E-04	1.48E-04	1.46E-04	0.00E+00	2.87E-04	4.95E-04	6.92E-05	1.65E-04	potential residence	2.15E-09	4.95E-08	2.33E-08	0.07
564390_418375C	564390	4183750	1.72E-04	1.61E-04	1.59E-04	0.00E+00	3.12E-04	5.38E-04	7.53E-05	1.79E-04	potential residence	2.33E-09	5.38E-08	2.53E-08	0.08
564410_418375C	564410	4183750	1.86E-04	1.75E-04	1.73E-04	0.00E+00	3.36E-04	5.80E-04	8.11E-05	1.93E-04	potential residence	2.52E-09	5.84E-08	2.73E-08	0.09
564430_418375C	564430	4183750	2.03E-04	1.91E-04	1.89E-04	0.00E+00	3.60E-04	6.21E-04	8.67E-05	2.07E-04	potential residence	2.76E-09	6.38E-08	2.92E-08	0.10
564450_418375C	564450	4183750	2.23E-04	2.10E-04	2.07E-04	0.00E+00	3.82E-04	6.58E-04	9.20E-05	2.19E-04	potential residence	3.02E-09	7.01E-08	3.10E-08	0.10
564470_418375C	564470	4183750	2.44E-04	2.31E-04	2.27E-04	0.00E+00	3.99E-04	6.88E-04	9.61E-05	2.29E-04	potential residence	3.31E-09	7.68E-08	3.25E-08	0.11
564490_418375C	564490	4183750	2.69E-04	2.54E-04	2.51E-04	0.00E+00	4.16E-04	7.17E-04	1.00E-04	2.39E-04	potential residence	3.64E-09	8.47E-08	3.39E-08	0.12
564510_418375C	564510	4183750	2.97E-04	2.82E-04	2.78E-04	0.00E+00	4.33E-04	7.47E-04	1.04E-04	2.49E-04	potential residence	4.03E-09	9.38E-08	3.54E-08	0.13
564530_418375C	564530	4183750	3.24E-04	3.08E-04	3.03E-04	0.00E+00	4.44E-04	7.66E-04	1.07E-04	2.55E-04	potential residence	4.40E-09	1.02E-07	3.64E-08	0.14
564550_418375C	564550	4183750	3.57E-04	3.39E-04	3.34E-04	0.00E+00	4.58E-04	7.90E-04	1.10E-04	2.63E-04	potential residence	4.84E-09	1.13E-07	3.76E-08	0.16
564570_418375C	564570	4183750	3.88E-04	3.70E-04	3.64E-04	0.00E+00	4.66E-04	8.03E-04	1.12E-04	2.67E-04	potential residence	5.27E-09	1.23E-07	3.84E-08	0.17
564590_418375C	564590	4183750	4.21E-04	4.01E-04	3.95E-04	0.00E+00	4.73E-04	8.16E-04	1.14E-04	2.71E-04	potential residence	5.71E-09	1.33E-07	3.92E-08	0.18
564610_418375C	564610	4183750	4.53E-04	4.32E-04	4.25E-04	0.00E+00	4.82E-04	8.31E-04	1.16E-04	2.76E-04	potential residence	6.14E-09	1.43E-07	4.00E-08	0.19
564630_418375C	564630	4183750	4.78E-04	4.56E-04	4.49E-04	0.00E+00	4.85E-04	8.37E-04	1.17E-04	2.78E-04	potential residence	6.48E-09	1.51E-07	4.04E-08	0.20
564650_418375C	564650	4183750	5.01E-04	4.78E-04	4.71E-04	0.00E+00	4.90E-04	8.45E-04	1.18E-04	2.81E-04	potential residence	6.80E-09	1.59E-07	4.09E-08	0.21
564670_418375C	564670	4183750	5.20E-04	4.97E-04	4.89E-04	0.00E+00	4.91E-04	8.47E-04	1.18E-04	2.82E-04	potential residence	7.06E-09	1.65E-07	4.11E-08	0.21
564690_418375C	564690	4183750	5.43E-04	5.19E-04	5.11E-04	0.00E+00	4.95E-04	8.54E-04	1.19E-04	2.84E-04	potential residence	7.37E-09	1.72E-07	4.16E-08	0.22
564710_418375C	564710	4183750	5.60E-04	5.35E-04	5.27E-04	0.00E+00	4.94E-04	8.52E-04	1.19E-04	2.83E-04	potential residence	7.59E-09	1.78E-07	4.15E-08	0.23
564730_418375C	564730	4183750	5.74E-04	5.49E-04	5.40E-04	0.00E+00	5.00E-04	8.62E-04	1.20E-04	2.87E-04	potential residence	7.78E-09	1.82E-07	4.20E-08	0.23
564750_418375C	564750	4183750	6.10E-04	5.84E-04	5.75E-04	0.00E+00	4.92E-04	8.48E-04	1.18E-04	2.82E-04	potential residence	8.27E-09	1.94E-07	4.16E-08	0.24
564770_418375C	564770	4183750	6.17E-04	5.91E-04	5.82E-04	0.00E+00	4.81E-04	8.29E-04	1.16E-04	2.76E-04	potential residence	8.37E-09	1.96E-07	4.08E-08	0.25
564790_418375C	564790	4183750	6.19E-04	5.93E-04	5.84E-04	0.00E+00	4.67E-04	8.05E-04	1.12E-04	2.68E-04	potential residence	8.40E-09	1.97E-07	3.97E-08	0.24
564810_418375C	564810	4183750	6.23E-04	5.96E-04	5.87E-04	0.00E+00	4.53E-04	7.82E-04	1.09E-04	2.60E-04	potential residence	8.44E-09	1.98E-07	3.87E-08	0.24
564830_418375C	564830	4183750	6.23E-04	5.97E-04	5.88E-04	0.00E+00	4.40E-04	7.59E-04	1.06E-04	2.53E-04	potential residence	8.46E-09	1.98E-07	3.77E-08	0.24
564850_418375C	564850	4183750	6.21E-04	5.95E-04	5.86E-04	0.00E+00	4.28E-04	7.39E-04	1.03E-04	2.46E-04	potential residence	8.43E-09	1.97E-07	3.67E-08	0.24
564870_418375C	564870	4183750	6.17E-04	5.91E-04	5.82E-04	0.00E+00	4.18E-04	7.21E-04	1.01E-04	2.40E-04	potential residence	8.37E-09	1.96E-07	3.59E-08	0.24
564890_418375C	564890	4183750	6.15E-04	5.89E-04	5.80E-04	0.00E+00	4.10E-04	7.07E-04	9.86E-05	2.35E-04	potential residence	8.35E-09	1.96E-07	3.52E-08	0.24
564910_418375C	564910	4183750	5.95E-04	5.70E-04	5.61E-04	0.00E+00	3.96E-04	6.84E-04	9.54E-05	2.28E-04	potential residence	8.07E-09	1.89E-07	3.41E-08	0.23
564930_418375C	564930	4183750	5.73E-04	5.49E-04	5.41E-04	0.00E+00	3.85E-04	6.64E-04	9.26E-05	2.21E-04	potential residence	7.78E-09	1.82E-07	3.31E-08	0.22
564950_418375C	564950	4183750	5.50E-04	5.27E-04	5.19E-04	0.00E+00	3.71E-04	6.40E-04	8.93E-05	2.13E-04	potential residence	7.46E-09	1.75E-07	3.19E-08	0.21
564370_418377C	564370	4183770	1.54E-04	1.44E-04	1.42E-04	0.00E+00	2.66E-04	4.60E-04	6.43E-05	1.53E-04	potential residence	2.08E-09	4.82E-08	2.16E-08	0.07
564390_418377C	564390	4183770	1.66E-04	1.56E-04	1.54E-04	0.00E+00	2.86E-04	4.93E-04	6.89E-05	1.64E-04	potential residence	2.25E-09	5.21E-08	2.32E-08	0.08
564410_418377C	564410	4183770	1.80E-04	1.70E-04	1.67E-04	0.00E+00	3.05E-04	5.25E-04	7.34E-05	1.75E-04	potential residence	2.44E-09	5.66E-08	2.47E-08	0.08
564430_418377C	564430	4183770	1.95E-04	1.84E-04	1.82E-04	0.00E+00	3.20E-04	5.53E-04	7.72E-05	1.84E-04	potential residence	2.65E-09	6.14E-08	2.61E-08	0.09
564450_418377C	564450	4183770	2.13E-04	2.01E-04	1.98E-04	0.00E+00	3.35E-04	5.78E-04	8.08E-05	1.92E-04	potential residence	2.89E-09	6.71E-08	2.73E-08	0.10
564470_418377C	564470	4183770	2.32E-04	2.19E-04	2.16E-04	0.00E+00	3.47E-04	5.98E-04	8.35E-05	1.99E-04	potential residence	3.14E-09	7.30E-08	2.83E-08	0.10
564490_418377C	564490	4183770	2.54E-04	2.40E-04	2.37E-04	0.00E+00	3.59E-04	6.19E-04	8.65E-05	2.06E-04	potential residence	3.44E-09	8.00E-08	2.94E-08	0.11
564510_418377C	564510	4183770	2.78E-04	2.64E-04	2.60E-04	0.00E+00	3.73E-04	6.43E-04	8.98E-05	2.14E-04	potential residence	3.77E-09	8.78E-08	3.06E-08	0.12
564530_418377C	564530	4183770	3.02E-04	2.87E-04	2.83E-04	0.00E+00	3.84E-04	6.62E-04	9.25E-05	2.20E-04	potential residence	4.10E-09	9.55E-08	3.16E-08	0.13
564550_418377C	564550	4183770	3.26E-04	3.10E-04	3.05E-04	0.00E+00	3.92E-04	6.76E-04	9.43E-05	2.25E-04	potential residence	4.42E-09	1.03E-07	3.23E-08	0.14
564570_418377C	564570	4183770	3.51E-04	3.34E-04	3.29E-04	0.00E+00	3.99E-04	6.89E-04	9.62E-05	2.29E-04	potential residence	4.76E-09	1.11E-07	3.31E-08	0.15
564590_418377C	564590	4183770	3.73E-04	3.56E-04	3.50E-04	0.00E+00	4.03E-04	6.96E-04	9.71E-05	2.31E-04	potential residence	5.06E-09	1.18E-07	3.35E-08	0.16
564610_418377C	564610	4183770	3.92E-04	3.74E-04	3.68E-04	0.00E+00	4.05E-04	6.99E-04	9.75E-05	2.32E-04	potential residence	5.32E-09	1.24E-07	3.37E-08	0.16
564630_418377C	564630	4183770	4.09E-04	3.91E-04	3.85E-04	0.00E+00	4.08E-04	7.04E-04	9.82E-05	2.34E-04	potential residence	5.55E-09	1.30E-07	3.40E-08	0.17
564650_418377C	564650	4183770	4.29E-04	4.09E-04	4.03E-04	0.00E+00	4.15E-04	7.15E-04	9.98E-05	2.38E-04	potential residence	5.81E-09	1.36E-07	3.47E-08	0.18
564670_418377C	564670	4183770	4.43E-04	4.23E-04	4.17E-04	0.00E+00	4.17E-04	7.19E-04	1.00E-04	2.39E-04	potential residence	6.01E-09	1.41E-07	3.49E-08	0.18
564690_418377C	564690	4183770	4.56E-04	4.36E-04	4.29E-04	0.00E+00	4.18E-04	7.21E-04	1.01E-04	2.40E-04	potential residence	6.19E-09	1.45E-07	3.51E-08	0.19
564710_418377C	564710	4183770	4.69E-04	4.48E-04	4.41E-04	0.00E+00	4.29E-04	7.39E-04	1.03E-04	2.46E-04	potential residence	6.36E-09	1.49E-07	3.60E-08	0.19
564730_418377C	564730	4183770	4.79E-04	4.58E-04	4.51E-04	0.00E+00	4.26E-04	7.36E-04	1.03E-04	2.45E-04	potential residence	6.50E-09	1.52E-07	3.58E-08	0.19
564750_418377C	564750	4183770	5.06E-04	4.84E-04	4.77E-04	0.00E+00	4.21E-04	7.27E-04	1.01E-04	2.42E-04	potential residence	6.87E-09	1.61E-07	3.56E-08	0.20
564770_418377C	564770	4183770	5.11E-04	4.89E-04	4.81E-04	0.00E+00	4.14E-04	7.14E-04	9.96E-05	2.37E-04	potential residence	6.93E-09	1.62E-07	3.50E-08	0.20
564790_418377C	564790	4183770	5.14E-04	4.92E-04	4.84E-04	0.00E+00	4.04E-04	6.97E-04	9.73E-05	2.32E-04	potential residence	6.97E-09	1.63E-07	3.43E-08	0.20
564810_418377C	564810	4183770	5.17E-04	4.95E-04	4.87E-04	0.00E+00	3.94E-04	6.79E-04	9.48E-05	2.26E-04	potential residence	7.01E-09	1.64E-07	3.35E-08	0.20
564830_418377C	564830	4183770	5.20E-04	4.98E-04	4.90E-04	0.00E+00	3.84E-04	6.63E-04	9.25E-05	2.21E-04	potential residence	7.05E-09	1.65E-07	3.28E-08	0.20
564850_418377C	564850	4183770	5.24E-04	5.02E-04	4.94E-04	0.00E+00	3.77E-04	6.50E-04	9.07E-05	2.16E-04	potential residence	7.11E-09	1.66E-07	3.22E-08	0.21
564870_418377C	564870	4183770	5.28E-04	5.05E-04	4.97E-04	0.00E+00	3.70E-04	6.38E-04	8.91E-05	2.12E-04	potential residence	7.15E-09	1.68E-07	3.17E-08	0.21
564890_418377C	564890	4183770	5.18E-04	4.96E-04	4.88E-04	0.00E+00	3.57E-04	6.16E-04	8.60E-05	2.05E-04	potential residence	7.02E-09	1.64E-07	3.06E-08	0.20
564910_418377C	564910	4183770	5.02E-04	4.80E-04	4.73E-04	0.00E+00	3.45E-04	5.95E-04	8.31E-05	1.98E-04	potential residence	6.81E-09	1.59E-07	2.96E-08	0.20
564930_418377C	564930	4183770	4.86E-04	4.65E-04	4.58E-04	0.00E+00	3.34E-04	5.77E-04	8.05E-05	1.92E-04	potential residence	6.59E-09	1.54E-07	2.87E-08	0.19
564410_418379C	564410	4183790	1.74E-04	1.64E-04	1.62E-04	0.00E+00	2.75E-04	4.75E-04	6.63E-05	1.58E-04	potential residence	2.36E-09	5.47E-08	2.24E-08	0.08
564430_418379C	564430	4183790	1.87E-04	1.77E-04	1.74E-04	0.00E+00	2.85E-04	4.92E-04	6.87E-05	1.64E-04	potential residence	2.54E-09	5.89E-08	2.33E-08	0.08
564450_418379C	564450	4183790	2.03E-04	1.92E-04	1.89E-04	0.00E+00	2.95E-04	5.09E-04	7.11E-05	1.69E-04	potential residence	2.75E-09	6.39E-08	2.41E-08	0.09
564470_418379C	564470	4183790	2.20E-04	2.09E-04	2.06E-04	0.00E+00	3.05E-04	5.26E-04	7.35E-05	1.75E-04	potential residence	2.99E-09	6.95E-08	2.50E-08	0.10
564490_418379C	564490	4183790	2.38E-04	2.26E-04	2.22E-04	0.00E+00	3.13E-04	5.39E-04	7.53E-05	1.79E-04	potential residence	3.23E-09	7.51E-08	2.57E-08	0.10
564510_418379C	564510	4183790	2.58E-04	2.45E-04	2.42E-04	0.00E+00	3.24E-04	5.58E-04	7.80E-05	1.86E-04	potential residence	3.50E-09	8.16E-08	2.66E-08	0.11
564530_418379C	564530	4183790	2.77E-04	2.64E-04	2.60E-04	0.00E+00	3.32E-04	5.73E-04	8.00E-05	1.91E-04	potential residence	3.76E-09	8.76E-08	2.74E-08	0.12
564550_418379C	564550	4183790	2.97E-04	2.82E-04	2.78E-04	0.00E+00	3.40E-04	5.86E-04	8.19E-05	1.95E-04	potential residence	4.02E-09	9.39E-08	2.81E-08	0.13
564570_418379C	564570	4183790	3.13E-04	2.98E-04	2.94E-04	0.00E+00	3.43E-04	5.92E-04	8.26E-05	1.97E-04	potential residence	4.25E-09	9.92E-08	2.85E-08	0.13
564590_418379C	564590	4183790	3.28E-04	3.13E-04	3.08E-04	0.00E+00	3.44E-04	5.94E-04	8.29E-05	1.97E-04	potential residence	4.45E-09	1.04E-07	2.86E-08	0.14
564610_418379C	564610	4183790	3.40E-04	3.25E-04	3.20E-04	0.00E+00	3.44E-04	5.94E-04	8.29E-05	1.98E-04	potential residence	4.62E-09	1.08E-07	2.87E-08	0.14
564630_418379C	564630	4183790	3.53E-04	3.37E-04	3.32E-04	0.00E+00	3.47E-04	5.99E-04	8.36E-05	1.99E-04	potential residence	4.79E-09	1.12E-07	2.90E-08	0.15
564650_418379C	564650	4183790	3.69E-04	3.52E-04	3.47E-04	0.00E+00	3.54E-04	6.11E-04	8.52E-05	2.03E-04	potential residence	5.01E-09	1.17E-07	2.96E-08	0.15
564670_418379C	564670	4183790	3.82E-04	3.65E-04	3.59E-04	0.00E+00	3.68E-04	6.34E-04	8.85E-05	2.11E-04	potential residence	5.18E-09	1.21E-07	3.07E-08	0.16
564690_418379C	564690	4183790	3.91E-04	3.73E-04	3.67E-04	0.00E+00	3.60E-04	6.20E-04	8.65E-05	2.06E-04	potential residence	5.30E-09	1.24E-07	3.01E-08	0.16
564710_418379C	564710	4183790	4.23E-04	4.04E-04	3.98E-04	0.00E+00	3.73E-04	6.43E-04	8.98E-05	2.14E-04	potential residence	5.74E-09	1.34E-07	3.14E-08	0.17
564730_418379C	564730	4183790	4.43E-04	4.24E-04	4.17E-04	0.00E+00	3.82E-04	6.59E-04	9.20E-05	2.19E-04	potential residence	6.01E-09	1.41E-07	3.22E-08	0.18
564750_418379C	564750	4183790	4.30E-04	4.11E-04	4.05E-04	0.00E+00	3.66E-04	6.32E-04	8.82E-05	2.10E-04	potential residence	5.83E-09	1.36E-07	3.09E-08	0.17
564770_418379C	564770	4183790	4.29E-04	4.10E-04	4.04E-04	0.00E+00	3.59E-04	6.19E-04	8.64E-05	2.06E-04	potential residence	5.82E-09	1.36E-07	3.03E-08	0.17
564790_418379C	564790	4183790	4.32E-04	4.13E-04	4.07E-04	0.00E+00	3.52E-04	6.08E-04	8.48E-05	2.02E-04	potential residence	5.86E-09	1.37E-07	2.98E-08	0.17
564810_418379C	564810	4183790	4.36E-04	4.17E-04	4.10E-04	0.00E+00	3.45E-04	5.95E-04	8.31E-05	1.98E-04	potential residence	5.91E-09	1.38E-07	2.93E-08	0.17
564830_418379C	564830	4183790	4.38E-04	4.19E-04	4.13E-04	0.00E+00	3.37E-04	5.82E-04	8.12E-05	1.94E-04	potential residence	5.94E-09	1.39E-07	2.87E-08	0.17
564850_418379C	564850	4183790	4.45E-04	4.25E-04	4.19E-04	0.00E+00	3.32E-04	5.74E-04	8.00E-05	1.91E-04	potential residence	6.03E-09	1.41E-07	2.83E-08	0.18
564870_418379C	564870	4183790	4.43E-04	4.24E-04	4.17E-04	0.00E+00	3.21E-04	5.54E-04	7.74E-05	1.84E-04	potential residence	6.01E-09	1.41E-07	2.74E-08	0.17
564890_418379C	564890	4183790	4.37E-04	4.18E-04	4.11E-04	0.00E+00	3.12E-04	5.39E-04	7.52E-05	1.79E-04	potential residence	5.92E-09	1.39E-07	2.67E-08	0.17
564910_418379C	564910	4183790	4.29E-04	4.10E-04	4.04E-04	0.00E+00	3.04E-04	5.25E-04	7.33E-05	1.75E-04	potential residence	5.81E-09	1.36E-07	2.60E-08	0.17
564930_418379C	564930	4183790	4.20E-04	4.01E-04	3.95E-04	0.00E+00	2.97E-04	5.13E-04	7.16E-05	1.71E-04	potential residence	5.69E-09	1.33E-07	2.54E-08	0.16
564450_418381C	564450	4183810	1.93E-04	1.83E-04	1.80E-04	0.00E+00	2.62E-04	4.52E-04	6.31E-05	1.50E-04	potential residence	2.62E-09	6.09E-08	2.15E-08	0.08
564470_418381C	564470	4183810	2.08E-04	1.97E-04	1.94E-04	0.00E+00	2.69E-04	4.65E-04	6.49E-05	1.55E-04	potential residence	2.82E-09	6.57E-08	2.21E-08	0.09

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type	$\sum R1*C_{DPM}$			
			2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564490_4183810	564490	4183810	2.24E-04	2.12E-04	2.09E-04	0.00E+00	2.77E-04	4.77E-04	6.67E-05	1.59E-04	potential residence	3.03E-09	7.06E-08	2.28E-08	0.10
564510_4183810	564510	4183810	2.39E-04	2.27E-04	2.24E-04	0.00E+00	2.84E-04	4.90E-04	6.85E-05	1.63E-04	School	3.24E-09	7.56E-08	2.35E-08	0.10
564530_4183810	564530	4183810	2.55E-04	2.42E-04	2.39E-04	0.00E+00	2.92E-04	5.03E-04	7.03E-05	1.67E-04	School	3.45E-09	8.05E-08	2.41E-08	0.11
564550_4183810	564550	4183810	2.69E-04	2.56E-04	2.52E-04	0.00E+00	2.97E-04	5.13E-04	7.16E-05	1.71E-04	potential residence	3.64E-09	8.50E-08	2.46E-08	0.11
564570_4183810	564570	4183810	2.80E-04	2.67E-04	2.63E-04	0.00E+00	2.99E-04	5.15E-04	7.19E-05	1.71E-04	potential residence	3.80E-09	8.87E-08	2.48E-08	0.12
564590_4183810	564590	4183810	2.91E-04	2.77E-04	2.73E-04	0.00E+00	2.99E-04	5.16E-04	7.21E-05	1.72E-04	potential residence	3.94E-09	9.20E-08	2.49E-08	0.12
564610_4183810	564610	4183810	3.01E-04	2.86E-04	2.82E-04	0.00E+00	3.00E-04	5.18E-04	7.23E-05	1.72E-04	potential residence	4.08E-09	9.52E-08	2.50E-08	0.12
564630_4183810	564630	4183810	3.10E-04	2.95E-04	2.91E-04	0.00E+00	3.01E-04	5.20E-04	7.26E-05	1.73E-04	potential residence	4.20E-09	9.81E-08	2.52E-08	0.13
564650_4183810	564650	4183810	3.21E-04	3.06E-04	3.02E-04	0.00E+00	3.06E-04	5.28E-04	7.37E-05	1.76E-04	potential residence	4.36E-09	1.02E-07	2.56E-08	0.13
564670_4183810	564670	4183810	3.32E-04	3.17E-04	3.12E-04	0.00E+00	3.18E-04	5.49E-04	7.66E-05	1.83E-04	potential residence	4.50E-09	1.05E-07	2.66E-08	0.14
564690_4183810	564690	4183810	3.41E-04	3.26E-04	3.21E-04	0.00E+00	3.21E-04	5.53E-04	7.72E-05	1.84E-04	potential residence	4.63E-09	1.08E-07	2.69E-08	0.14
564710_4183810	564710	4183810	3.62E-04	3.46E-04	3.41E-04	0.00E+00	3.23E-04	5.56E-04	7.77E-05	1.85E-04	potential residence	4.91E-09	1.15E-07	2.71E-08	0.15
564730_4183810	564730	4183810	3.48E-04	3.32E-04	3.27E-04	0.00E+00	3.20E-04	5.51E-04	7.69E-05	1.83E-04	potential residence	4.71E-09	1.10E-07	2.68E-08	0.14
564750_4183810	564750	4183810	3.50E-04	3.34E-04	3.29E-04	0.00E+00	3.18E-04	5.48E-04	7.65E-05	1.82E-04	potential residence	4.75E-09	1.11E-07	2.67E-08	0.14
564770_4183810	564770	4183810	3.66E-04	3.50E-04	3.45E-04	0.00E+00	3.14E-04	5.42E-04	7.57E-05	1.80E-04	potential residence	4.97E-09	1.16E-07	2.65E-08	0.15
564790_4183810	564790	4183810	3.69E-04	3.53E-04	3.48E-04	0.00E+00	3.10E-04	5.35E-04	7.46E-05	1.78E-04	potential residence	5.01E-09	1.17E-07	2.62E-08	0.15
564810_4183810	564810	4183810	3.72E-04	3.56E-04	3.50E-04	0.00E+00	3.04E-04	5.25E-04	7.33E-05	1.75E-04	potential residence	5.04E-09	1.18E-07	2.57E-08	0.15
564830_4183810	564830	4183810	3.74E-04	3.58E-04	3.53E-04	0.00E+00	2.98E-04	5.15E-04	7.18E-05	1.71E-04	potential residence	5.08E-09	1.19E-07	2.53E-08	0.15
564850_4183810	564850	4183810	3.76E-04	3.60E-04	3.54E-04	0.00E+00	2.92E-04	5.04E-04	7.03E-05	1.68E-04	potential residence	5.10E-09	1.19E-07	2.48E-08	0.15
564870_4183810	564870	4183810	3.80E-04	3.64E-04	3.58E-04	0.00E+00	2.88E-04	4.97E-04	6.94E-05	1.65E-04	potential residence	5.16E-09	1.21E-07	2.45E-08	0.15
564890_4183810	564890	4183810	3.75E-04	3.59E-04	3.54E-04	0.00E+00	2.80E-04	4.83E-04	6.75E-05	1.61E-04	potential residence	5.09E-09	1.19E-07	2.39E-08	0.15
564910_4183810	564910	4183810	3.70E-04	3.54E-04	3.49E-04	0.00E+00	2.73E-04	4.72E-04	6.58E-05	1.57E-04	potential residence	5.02E-09	1.18E-07	2.33E-08	0.15
564930_4183810	564930	4183810	3.64E-04	3.48E-04	3.43E-04	0.00E+00	2.66E-04	4.59E-04	6.40E-05	1.53E-04	potential residence	4.93E-09	1.15E-07	2.27E-08	0.14
564470_4183830	564470	4183830	1.96E-04	1.86E-04	1.83E-04	0.00E+00	2.40E-04	4.14E-04	5.78E-05	1.38E-04	School	2.66E-09	6.19E-08	1.98E-08	0.08
564490_4183830	564490	4183830	2.08E-04	1.97E-04	1.94E-04	0.00E+00	2.45E-04	4.22E-04	5.90E-05	1.40E-04	School	2.82E-09	6.56E-08	2.02E-08	0.09
564510_4183830	564510	4183830	2.20E-04	2.09E-04	2.06E-04	0.00E+00	2.50E-04	4.32E-04	6.03E-05	1.44E-04	School	2.98E-09	6.94E-08	2.07E-08	0.09
564530_4183830	564530	4183830	2.31E-04	2.20E-04	2.17E-04	0.00E+00	2.56E-04	4.42E-04	6.17E-05	1.47E-04	School	3.14E-09	7.31E-08	2.12E-08	0.10
564550_4183830	564550	4183830	2.43E-04	2.31E-04	2.28E-04	0.00E+00	2.62E-04	4.51E-04	6.30E-05	1.50E-04	School	3.29E-09	7.68E-08	2.17E-08	0.10
564570_4183830	564570	4183830	2.51E-04	2.40E-04	2.36E-04	0.00E+00	2.63E-04	4.54E-04	6.34E-05	1.51E-04	potential residence	3.41E-09	7.96E-08	2.19E-08	0.10
564590_4183830	564590	4183830	2.59E-04	2.47E-04	2.43E-04	0.00E+00	2.63E-04	4.54E-04	6.34E-05	1.51E-04	potential residence	3.51E-09	8.20E-08	2.19E-08	0.11
564610_4183830	564610	4183830	2.66E-04	2.54E-04	2.50E-04	0.00E+00	2.64E-04	4.55E-04	6.35E-05	1.51E-04	potential residence	3.61E-09	8.44E-08	2.20E-08	0.11
564630_4183830	564630	4183830	2.75E-04	2.62E-04	2.58E-04	0.00E+00	2.65E-04	4.58E-04	6.39E-05	1.52E-04	potential residence	3.72E-09	8.70E-08	2.22E-08	0.11
564650_4183830	564650	4183830	2.83E-04	2.70E-04	2.66E-04	0.00E+00	2.68E-04	4.62E-04	6.45E-05	1.54E-04	potential residence	3.84E-09	8.97E-08	2.24E-08	0.12
564670_4183830	564670	4183830	2.91E-04	2.78E-04	2.74E-04	0.00E+00	2.79E-04	4.81E-04	6.71E-05	1.60E-04	potential residence	3.95E-09	9.23E-08	2.33E-08	0.12
564690_4183830	564690	4183830	2.97E-04	2.83E-04	2.79E-04	0.00E+00	2.80E-04	4.83E-04	6.74E-05	1.61E-04	potential residence	4.02E-09	9.40E-08	2.34E-08	0.12
564710_4183830	564710	4183830	2.99E-04	2.86E-04	2.81E-04	0.00E+00	2.80E-04	4.83E-04	6.75E-05	1.61E-04	potential residence	4.06E-09	9.49E-08	2.35E-08	0.12
564730_4183830	564730	4183830	3.01E-04	2.88E-04	2.83E-04	0.00E+00	2.80E-04	4.84E-04	6.75E-05	1.61E-04	potential residence	4.09E-09	9.55E-08	2.35E-08	0.12
564750_4183830	564750	4183830	3.16E-04	3.01E-04	2.97E-04	0.00E+00	2.80E-04	4.83E-04	6.74E-05	1.61E-04	potential residence	4.28E-09	1.00E-07	2.35E-08	0.13
564770_4183830	564770	4183830	3.17E-04	3.03E-04	2.98E-04	0.00E+00	2.78E-04	4.79E-04	6.69E-05	1.59E-04	potential residence	4.30E-09	1.01E-07	2.34E-08	0.13
564790_4183830	564790	4183830	3.19E-04	3.05E-04	3.00E-04	0.00E+00	2.75E-04	4.74E-04	6.61E-05	1.58E-04	potential residence	4.33E-09	1.01E-07	2.31E-08	0.13
564810_4183830	564810	4183830	3.21E-04	3.07E-04	3.02E-04	0.00E+00	2.70E-04	4.66E-04	6.51E-05	1.55E-04	potential residence	4.36E-09	1.02E-07	2.28E-08	0.13
564830_4183830	564830	4183830	3.24E-04	3.10E-04	3.05E-04	0.00E+00	2.66E-04	4.59E-04	6.41E-05	1.53E-04	potential residence	4.40E-09	1.03E-07	2.25E-08	0.13
564850_4183830	564850	4183830	3.27E-04	3.12E-04	3.07E-04	0.00E+00	2.61E-04	4.51E-04	6.29E-05	1.50E-04	potential residence	4.43E-09	1.04E-07	2.21E-08	0.13
564870_4183830	564870	4183830	3.27E-04	3.13E-04	3.08E-04	0.00E+00	2.56E-04	4.42E-04	6.17E-05	1.47E-04	potential residence	4.44E-09	1.04E-07	2.17E-08	0.13
564890_4183830	564890	4183830	3.26E-04	3.12E-04	3.07E-04	0.00E+00	2.51E-04	4.33E-04	6.05E-05	1.44E-04	potential residence	4.43E-09	1.04E-07	2.13E-08	0.13
564910_4183830	564910	4183830	3.22E-04	3.08E-04	3.03E-04	0.00E+00	2.45E-04	4.22E-04	5.89E-05	1.40E-04	potential residence	4.36E-09	1.02E-07	2.08E-08	0.13
564930_4183830	564930	4183830	3.19E-04	3.05E-04	3.00E-04	0.00E+00	2.39E-04	4.12E-04	5.75E-05	1.37E-04	potential residence	4.33E-09	1.01E-07	2.03E-08	0.13
564510_4183850	564510	4183850	2.03E-04	1.93E-04	1.90E-04	0.00E+00	2.24E-04	3.87E-04	5.40E-05	1.29E-04	School	2.75E-09	6.41E-08	1.86E-08	0.09
564530_4183850	564530	4183850	2.10E-04	2.00E-04	1.97E-04	0.00E+00	2.27E-04	3.92E-04	5.47E-05	1.30E-04	School	2.85E-09	6.65E-08	1.89E-08	0.09
564550_4183850	564550	4183850	2.19E-04	2.09E-04	2.06E-04	0.00E+00	2.32E-04	4.01E-04	5.60E-05	1.33E-04	School	2.98E-09	6.94E-08	1.93E-08	0.09
564570_4183850	564570	4183850	2.26E-04	2.15E-04	2.12E-04	0.00E+00	2.34E-04	4.03E-04	5.63E-05	1.34E-04	potential residence	3.07E-09	7.16E-08	1.94E-08	0.09
564590_4183850	564590	4183850	2.32E-04	2.21E-04	2.17E-04	0.00E+00	2.33E-04	4.03E-04	5.62E-05	1.34E-04	potential residence	3.14E-09	7.34E-08	1.95E-08	0.10
564610_4183850	564610	4183850	2.37E-04	2.26E-04	2.23E-04	0.00E+00	2.33E-04	4.02E-04	5.62E-05	1.34E-04	potential residence	3.22E-09	7.51E-08	1.95E-08	0.10
564630_4183850	564630	4183850	2.44E-04	2.32E-04	2.29E-04	0.00E+00	2.34E-04	4.03E-04	5.63E-05	1.34E-04	potential residence	3.30E-09	7.71E-08	1.96E-08	0.10
564650_4183850	564650	4183850	2.50E-04	2.39E-04	2.35E-04	0.00E+00	2.36E-04	4.06E-04	5.67E-05	1.35E-04	potential residence	3.39E-09	7.92E-08	1.97E-08	0.10
564670_4183850	564670	4183850	2.57E-04	2.45E-04	2.41E-04	0.00E+00	2.45E-04	4.23E-04	5.90E-05	1.41E-04	potential residence	3.48E-09	8.13E-08	2.05E-08	0.11
564690_4183850	564690	4183850	2.62E-04	2.50E-04	2.46E-04	0.00E+00	2.47E-04	4.26E-04	5.95E-05	1.42E-04	potential residence	3.55E-09	8.30E-08	2.07E-08	0.11
564710_4183850	564710	4183850	2.63E-04	2.51E-04	2.48E-04	0.00E+00	2.48E-04	4.27E-04	5.96E-05	1.42E-04	potential residence	3.57E-09	8.35E-08	2.07E-08	0.11
564730_4183850	564730	4183850	2.65E-04	2.53E-04	2.49E-04	0.00E+00	2.48E-04	4.28E-04	5.98E-05	1.43E-04	potential residence	3.59E-09	8.39E-08	2.08E-08	0.11
564750_4183850	564750	4183850	2.76E-04	2.64E-04	2.60E-04	0.00E+00	2.48E-04	4.28E-04	5.98E-05	1.42E-04	potential residence	3.75E-09	8.76E-08	2.09E-08	0.11
564770_4183850	564770	4183850	2.77E-04	2.65E-04	2.61E-04	0.00E+00	2.47E-04	4.26E-04	5.95E-05	1.42E-04	potential residence	3.76E-09	8.79E-08	2.08E-08	0.11
564790_4183850	564790	4183850	2.79E-04	2.66E-04	2.62E-04	0.00E+00	2.45E-04	4.22E-04	5.90E-05	1.41E-04	potential residence	3.78E-09	8.83E-08	2.06E-08	0.11
564810_4183850	564810	4183850	2.80E-04	2.68E-04	2.64E-04	0.00E+00	2.42E-04	4.17E-04	5.82E-05	1.39E-04	potential residence	3.80E-09	8.89E-08	2.03E-08	0.11
564830_4183850	564830	4183850	2.83E-04	2.70E-04	2.66E-04	0.00E+00	2.38E-04	4.10E-04	5.73E-05	1.37E-04	potential residence	3.83E-09	8.96E-08	2.01E-08	0.11
564850_4183850	564850	4183850	2.85E-04	2.72E-04	2.68E-04	0.00E+00	2.34E-04	4.04E-04	5.64E-05	1.34E-04	potential residence	3.86E-09	9.03E-08	1.98E-08	0.11
564870_4183850	564870	4183850	2.86E-04	2.73E-04	2.69E-04	0.00E+00	2.30E-04	3.97E-04	5.54E-05	1.32E-04	potential residence	3.88E-09	9.08E-08	1.95E-08	0.11
564890_4183850	564890	4183850	2.86E-04	2.73E-04	2.69E-04	0.00E+00	2.26E-04	3.90E-04	5.44E-05	1.30E-04	potential residence	3.88E-09	9.07E-08	1.92E-08	0.11
564910_4183850	564910	4183850	2.84E-04	2.71E-04	2.67E-04	0.00E+00	2.21E-04	3.82E-04	5.33E-05	1.27E-04	potential residence	3.85E-09	9.01E-08	1.88E-08	0.11
564550_4183870	564550	4183870	1.99E-04	1.89E-04	1.87E-04	0.00E+00	2.08E-04	3.59E-04	5.02E-05	1.19E-04	School	2.70E-09	6.30E-08	1.73E-08	0.08
564570_4183870	564570	4183870	2.03E-04	1.94E-04	1.91E-04	0.00E+00	2.08E-04	3.59E-04	5.02E-05	1.20E-04	potential residence	2.76E-09	6.44E-08	1.73E-08	0.08
564590_4183870	564590	4183870	2.08E-04	1.98E-04	1.95E-04	0.00E+00	2.08E-04	3.58E-04	5.01E-05	1.19E-04	potential residence	2.82E-09	6.58E-08	1.73E-08	0.09
564610_4183870	564610	4183870	2.12E-04	2.02E-04	1.99E-04	0.00E+00	2.07E-04	3.57E-04	4.99E-05	1.19E-04	potential residence	2.88E-09	6.71E-08	1.73E-08	0.09
564630_4183870	564630	4183870	2.17E-04	2.07E-04	2.04E-04	0.00E+00	2.07E-04	3.58E-04	5.00E-05	1.19E-04	potential residence	2.95E-09	6.88E-08	1.73E-08	0.09
564650_4183870	564650	4183870	2.22E-04	2.12E-04	2.09E-04	0.00E+00	2.08E-04	3.59E-04	5.02E-05	1.20E-04	potential residence	3.02E-09	7.04E-08	1.75E-08	0.09
564670_4183870	564670	4183870	2.28E-04	2.17E-04	2.14E-04	0.00E+00	2.11E-04	3.64E-04	5.09E-05	1.21E-04	potential residence	3.09E-09	7.22E-08	1.77E-08	0.09
564690_4183870	564690	4183870	2.33E-04	2.22E-04	2.19E-04	0.00E+00	2.20E-04	3.79E-04	5.29E-05	1.26E-04	potential residence	3.16E-09	7.38E-08	1.84E-08	0.10
564710_4183870	564710	4183870	2.35E-04	2.24E-04	2.20E-04	0.00E+00	2.21E-04	3.81E-04	5.32E-05	1.27E-04	potential residence	3.18E-09	7.43E-08	1.85E-08	0.10
564730_4183870	564730	4183870	2.35E-04	2.24E-04	2.21E-04	0.00E+00	2.22E-04	3.82E-04	5.34E-05	1.27E-04	potential residence	3.18E-09	7.44E-08	1.85E-08	0.10
564750_4183870	564750	4183870	2.44E-04	2.33E-04	2.29E-04	0.00E+00	2.22E-04	3.83E-04	5.34E-05	1.27E-04	potential residence	3.31E-09	7.73E-08	1.86E-08	0.10
564770_4183870	564770	4183870	2.44E-04	2.33E-04	2.29E-04	0.00E+00	2.21E-04	3.81E-04	5.32E-05	1.27E-04	potential residence	3.31E-09	7.74E-08	1.85E-08	0.10
564790_4183870	564790	4183870	2.45E-04	2.34E-04	2.30E-04	0.00E+00	2.19E-04	3.78E-04	5.28E-05	1.26E-04	potential residence	3.32E-09	7.76E-08	1.84E-08	0.10
564810_4183870	564810	4183870	2.47E-04	2.36E-04	2.33E-04	0.00E+00	2.17E-04	3.75E-04	5.24E-05	1.25E-04	potential residence	3.36E-09	7.84E-08	1.83E-08	0.10
564830_4183870	564830	4183870	2.49E-04	2.38E-04	2.34E-04	0.00E+00	2.14E-04	3.70E-04	5.16E-05	1.23E-04	potential residence	3.38E-09	7.90E-08	1.81E-08	0.10
564850_4183870	564850	4183870	2.51E-04	2.40E-04	2.36E-04	0.00E+00	2.11E-04	3.64E-04	5.09E-05	1.21E-04	potential residence	3.40E-09	7.95E-08	1.78E-08	0.10
564870_4183870	564870	4183870	2.53E-04	2.41E-04	2.38E-04	0.00E+00	2.08E-04	3.59E-04	5.01E-05	1.19E-04	potential residence	3.43E-09	8.01E-08	1.76E-08	0.10
564590_4183890	564590	4183890	1.88E-04	1.79E-04	1.76E-04	0.00E+00	1.87E-04	3.22E-04	4.50E-05	1.07E-04	potential residence	2.54E-09	5.93E-08	1.56E-08	0.08
564610_4183890	564610	4183890	1.92E-04	1.82E-04	1.80E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	potential residence	2.60E-09	6.06E-08	1.55E-08	0.08
564630_4183890	564630	4183890	1.96E-04	1.87E-04	1.84E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	potential residence	2.66E-09	6.21E-08	1.56E-08	0.08
564650_4183890	564650	4183890	2.02E-04	1.92E-04	1.90E-04	0.00E+00	1.94E-04	3.35E-04	4.68E-05	1.12E-04	potential residence	2.74E-09	6.39E-08	1.63E-08	0.08
564670_4183890	564670	4183890	2.05E-04	1.95E-04	1.92E-04	0.00E+00	1.95E-04	3.36E-04	4.69E-05	1.12E-04	potential residence	2.78E-09	6.49E-08	1.63E-08	0.08
564690_4183890	564690	4183890	2.08E-04	1.99E-04	1.96E-04	0.00E+00	1.96E-04	3.39E-04	4.73E-05	1.13E-04	potential residence	2.83E-09	6.60E-08	1.64E-08	0.09
564710_4183890	564710	4183890	2.09E-04	2.00E-04	1.96E-04	0.00E+00	1.98E-04	3.41E-04	4.76E-05	1.13E-04	potential residence	2.84E-09	6.63E-08	1.65E-08	0.09
564730_4183890	564730	4183890	2.09E-04	1.99E-04	1.96E-04	0.00E+00	1.98E-04	3.42E-04	4.78E-05	1.14E-04	potential residence	2.83E-09	6.62E-08	1.66E-08	0.09
564750_4183890	564750	4183890	2.17E-04	2.07E-04	2.04E-04	0.00E+00	1.99E-04	3.43E-04	4.79E-05	1.14E-04	potential residence	2.94E-09	6.86E-08	1.67E-08	0.09
564770_4183890	564770	4183890	2.17E-04	2.07E-04	2.03E-04	0.00E+00	1.98E-04	3.42E-04	4.78E-05	1.14E-04	potential residence	2.94E-09	6.86E-08	1.66E-08	0.09
564790_4183890	564790	4183890	2.18E-04	2.08E-04	2.05E-04	0.00E+00	1.98E-04	3.41E-04	4.77E-05	1.14E-04	potential residence	2.95E-09	6.90E-08	1.66E-08	0.09
564810_4183890	564810	4183890	2.20E-04	2.10E-04	2.07E-04	0.00E+00	1.97E-04	3.39E-04	4.73E-05	1.13E-04	potential residence	2.98E-09	6.97E-08	1.65E-08	0.09
564830_4183890	564830	4183890	2.22E-04	2.11E-04	2.08E-04	0.00E+00	1.94E-04	3.35E-04	4.68E-05	1.12E-04	potential residence	3.00E-09	7.02E-08	1.64E-08	0.09
564850_4183890	564850	4183890	2.23E-04	2.13E-04	2.10E-04	0.00E+00	1.92E-04	3.31E-04	4.62E-05	1.10E-04	potential residence	3.03E-09	7.07E-08	1.62E-08	0.09
564630_4183910	564630	4183910	1.78E-04	1.70E-04	1.67E-04	0.00E+00	1.68E-04	2.90E-04	4.06E-05	9.65E-05	potential residence	2.42E-09	5.64E-08	1.41E-08	0.07
564650_4183910	564650	4183910	1.83E-04	1.75E-04	1.72E-04	0.00E+00	1.75E-04	3.03E-04	4.23E-05	1.01E-04	potential residence	2.48E-09	5.80E-08	1.47E-08	0.08
564670_4183910	564670	4183910	1.85E-04	1.77E-04	1.74E-04	0.00E+00	1.75E-04	3.03E-04	4.23E-05	1.01E-04	potential residence	2.51E-09	5.87E-08	1.47E-08	0.08
564690_4183910	564690	4183910	1.87E-04	1.78E-04	1.76E-04	0.00E+00	1.77E-04	3.05E-04	4.25E-05	1.01E-04	potential residence	2.54E-09	5.93E-08	1.48E-08	0.08
564710_4183910	564710	4183910	1.88E-04	1.79E-04	1.76E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	potential residence	2.55E-09	5.95E-08	1.49E-08	0.08

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Risk Calculation Part 2

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type	$\sum R1^*C_{DPM}$			
			2022	2023	2024	2025	2026	2027	2028	2029		3rd Trimester	0<2	2<16	Total
564730_418391C	564730	4183910	1.87E-04	1.78E-04	1.76E-04	0.00E+00	1.79E-04	3.08E-04	4.31E-05	1.03E-04	potential residence	2.54E-09	5.92E-08	1.50E-08	0.08
564750_418391C	564750	4183910	1.94E-04	1.85E-04	1.82E-04	0.00E+00	1.79E-04	3.09E-04	4.32E-05	1.03E-04	potential residence	2.63E-09	6.14E-08	1.50E-08	0.08
564770_418391C	564770	4183910	1.94E-04	1.85E-04	1.82E-04	0.00E+00	1.80E-04	3.10E-04	4.33E-05	1.03E-04	potential residence	2.63E-09	6.14E-08	1.51E-08	0.08
564790_418391C	564790	4183910	1.95E-04	1.86E-04	1.83E-04	0.00E+00	1.79E-04	3.09E-04	4.32E-05	1.03E-04	potential residence	2.64E-09	6.17E-08	1.50E-08	0.08
564810_418391C	564810	4183910	1.96E-04	1.87E-04	1.84E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	potential residence	2.66E-09	6.22E-08	1.50E-08	0.08
564610_418391C	564610	4183910	1.74E-04	1.66E-04	1.63E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.64E-05	potential residence	2.36E-09	5.50E-08	1.40E-08	0.07
564590_418391C	564590	4183910	1.70E-04	1.62E-04	1.60E-04	0.00E+00	1.69E-04	2.91E-04	4.06E-05	9.68E-05	potential residence	2.31E-09	5.39E-08	1.41E-08	0.07
564570_418391C	564570	4183910	1.67E-04	1.59E-04	1.56E-04	0.00E+00	1.69E-04	2.92E-04	4.07E-05	9.70E-05	potential residence	2.26E-09	5.28E-08	1.41E-08	0.07
564550_418391C	564550	4183910	1.66E-04	1.58E-04	1.56E-04	0.00E+00	1.77E-04	3.06E-04	4.28E-05	1.02E-04	potential residence	2.25E-09	5.25E-08	1.47E-08	0.07
564530_418391C	564530	4183910	1.62E-04	1.54E-04	1.52E-04	0.00E+00	1.70E-04	2.93E-04	4.09E-05	9.74E-05	potential residence	2.20E-09	5.14E-08	1.41E-08	0.07
564510_418391C	564510	4183910	1.58E-04	1.50E-04	1.48E-04	0.00E+00	1.66E-04	2.86E-04	4.00E-05	9.52E-05	potential residence	2.14E-09	4.99E-08	1.38E-08	0.07
564490_418391C	564490	4183910	1.53E-04	1.46E-04	1.44E-04	0.00E+00	1.63E-04	2.81E-04	3.92E-05	9.33E-05	potential residence	2.08E-09	4.85E-08	1.35E-08	0.06
564470_418391C	564470	4183910	1.48E-04	1.41E-04	1.39E-04	0.00E+00	1.59E-04	2.75E-04	3.84E-05	9.13E-05	School	2.01E-09	4.69E-08	1.32E-08	0.06
564450_418391C	564450	4183910	1.43E-04	1.36E-04	1.34E-04	0.00E+00	1.56E-04	2.70E-04	3.77E-05	8.97E-05	School	1.94E-09	4.52E-08	1.30E-08	0.06
564430_418391C	564430	4183910	1.37E-04	1.30E-04	1.28E-04	0.00E+00	1.53E-04	2.64E-04	3.69E-05	8.79E-05	potential residence	1.85E-09	4.31E-08	1.27E-08	0.06
564410_418391C	564410	4183910	1.31E-04	1.24E-04	1.22E-04	0.00E+00	1.51E-04	2.61E-04	3.64E-05	8.67E-05	potential residence	1.77E-09	4.12E-08	1.25E-08	0.06
564390_418391C	564390	4183910	1.24E-04	1.18E-04	1.16E-04	0.00E+00	1.49E-04	2.57E-04	3.59E-05	8.55E-05	potential residence	1.69E-09	3.93E-08	1.23E-08	0.05
564370_418391C	564370	4183910	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.47E-04	2.53E-04	3.54E-05	8.42E-05	potential residence	1.60E-09	3.73E-08	1.21E-08	0.05
564350_418391C	564350	4183910	1.13E-04	1.07E-04	1.05E-04	0.00E+00	1.44E-04	2.49E-04	3.48E-05	8.28E-05	potential residence	1.53E-09	3.56E-08	1.19E-08	0.05
564570_418389C	564570	4183890	1.84E-04	1.75E-04	1.73E-04	0.00E+00	1.87E-04	3.23E-04	4.52E-05	1.08E-04	potential residence	2.50E-09	5.83E-08	1.56E-08	0.08
564550_418389C	564550	4183890	1.80E-04	1.72E-04	1.69E-04	0.00E+00	1.87E-04	3.22E-04	4.50E-05	1.07E-04	potential residence	2.45E-09	5.70E-08	1.56E-08	0.08
564530_418389C	564530	4183890	1.77E-04	1.68E-04	1.65E-04	0.00E+00	1.86E-04	3.20E-04	4.48E-05	1.07E-04	potential residence	2.39E-09	5.58E-08	1.54E-08	0.07
564510_418389C	564510	4183890	1.71E-04	1.63E-04	1.61E-04	0.00E+00	1.82E-04	3.15E-04	4.40E-05	1.05E-04	School	2.33E-09	5.42E-08	1.52E-08	0.07
564490_418389C	564490	4183890	1.65E-04	1.57E-04	1.55E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	School	2.24E-09	5.22E-08	1.48E-08	0.07
564470_418389C	564470	4183890	1.59E-04	1.51E-04	1.49E-04	0.00E+00	1.74E-04	3.01E-04	4.21E-05	1.00E-04	School	2.16E-09	5.03E-08	1.45E-08	0.07
564450_418389C	564450	4183890	1.53E-04	1.45E-04	1.43E-04	0.00E+00	1.72E-04	2.96E-04	4.14E-05	9.86E-05	School	2.07E-09	4.83E-08	1.42E-08	0.06
564430_418389C	564430	4183890	1.45E-04	1.38E-04	1.36E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.64E-05	potential residence	1.97E-09	4.58E-08	1.39E-08	0.06
564410_418389C	564410	4183890	1.38E-04	1.31E-04	1.29E-04	0.00E+00	1.66E-04	2.86E-04	4.00E-05	9.51E-05	potential residence	1.87E-09	4.35E-08	1.37E-08	0.06
564390_418389C	564390	4183890	1.31E-04	1.24E-04	1.22E-04	0.00E+00	1.63E-04	2.81E-04	3.93E-05	9.34E-05	potential residence	1.77E-09	4.12E-08	1.34E-08	0.06
564370_418389C	564370	4183890	1.24E-04	1.18E-04	1.16E-04	0.00E+00	1.60E-04	2.77E-04	3.87E-05	9.20E-05	potential residence	1.68E-09	3.92E-08	1.32E-08	0.05
564350_418389C	564350	4183890	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.57E-04	2.71E-04	3.78E-05	9.00E-05	potential residence	1.60E-09	3.71E-08	1.29E-08	0.05
564530_418387C	564530	4183870	1.92E-04	1.83E-04	1.80E-04	0.00E+00	2.04E-04	3.53E-04	4.93E-05	1.17E-04	School	2.61E-09	6.08E-08	1.70E-08	0.08
564510_418387C	564510	4183870	1.85E-04	1.76E-04	1.74E-04	0.00E+00	2.00E-04	3.45E-04	4.83E-05	1.15E-04	School	2.52E-09	5.87E-08	1.66E-08	0.08
564490_418387C	564490	4183870	1.79E-04	1.70E-04	1.67E-04	0.00E+00	1.96E-04	3.39E-04	4.73E-05	1.13E-04	School	2.42E-09	5.64E-08	1.63E-08	0.08
564470_418387C	564470	4183870	1.71E-04	1.62E-04	1.60E-04	0.00E+00	1.93E-04	3.33E-04	4.65E-05	1.11E-04	School	2.32E-09	5.40E-08	1.60E-08	0.07
564450_418387C	564450	4183870	1.63E-04	1.55E-04	1.52E-04	0.00E+00	1.90E-04	3.27E-04	4.57E-05	1.09E-04	School	2.21E-09	5.14E-08	1.57E-08	0.07
564430_418387C	564430	4183870	1.54E-04	1.46E-04	1.44E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	School	2.09E-09	4.86E-08	1.53E-08	0.07
564410_418387C	564410	4183870	1.46E-04	1.38E-04	1.36E-04	0.00E+00	1.83E-04	3.15E-04	4.41E-05	1.05E-04	potential residence	1.97E-09	4.59E-08	1.51E-08	0.06
564390_418387C	564390	4183870	1.38E-04	1.31E-04	1.29E-04	0.00E+00	1.80E-04	3.10E-04	4.33E-05	1.03E-04	potential residence	1.87E-09	4.34E-08	1.48E-08	0.06
564370_418387C	564370	4183870	1.30E-04	1.23E-04	1.21E-04	0.00E+00	1.75E-04	3.02E-04	4.22E-05	1.00E-04	potential residence	1.76E-09	4.08E-08	1.44E-08	0.06
564350_418387C	564350	4183870	1.22E-04	1.16E-04	1.14E-04	0.00E+00	1.70E-04	2.93E-04	4.09E-05	9.74E-05	Daycare	1.66E-09	3.85E-08	1.39E-08	0.05
564330_418387C	564330	4183870	1.15E-04	1.09E-04	1.07E-04	0.00E+00	1.64E-04	2.82E-04	3.94E-05	9.38E-05	Daycare	1.56E-09	3.62E-08	1.34E-08	0.05
564490_418385C	564490	4183850	1.93E-04	1.83E-04	1.81E-04	0.00E+00	2.19E-04	3.78E-04	5.27E-05	1.26E-04	School	2.62E-09	6.10E-08	1.81E-08	0.08
564470_418385C	564470	4183850	1.83E-04	1.74E-04	1.71E-04	0.00E+00	2.14E-04	3.69E-04	5.15E-05	1.23E-04	School	2.48E-09	5.77E-08	1.77E-08	0.08
564450_418385C	564450	4183850	1.73E-04	1.64E-04	1.62E-04	0.00E+00	2.10E-04	3.62E-04	5.06E-05	1.21E-04	School	2.35E-09	5.46E-08	1.73E-08	0.07
564430_418385C	564430	4183850	1.63E-04	1.55E-04	1.52E-04	0.00E+00	2.06E-04	3.56E-04	4.98E-05	1.18E-04	School	2.21E-09	5.15E-08	1.70E-08	0.07
564410_418385C	564410	4183850	1.53E-04	1.45E-04	1.43E-04	0.00E+00	2.02E-04	3.48E-04	4.87E-05	1.16E-04	potential residence	2.07E-09	4.82E-08	1.66E-08	0.07
564390_418385C	564390	4183850	1.44E-04	1.36E-04	1.34E-04	0.00E+00	1.97E-04	3.40E-04	4.75E-05	1.13E-04	potential residence	1.95E-09	4.52E-08	1.61E-08	0.06
564370_418385C	564370	4183850	1.34E-04	1.27E-04	1.25E-04	0.00E+00	1.90E-04	3.28E-04	4.59E-05	1.09E-04	potential residence	1.82E-09	4.23E-08	1.56E-08	0.06
564350_418385C	564350	4183850	1.26E-04	1.19E-04	1.17E-04	0.00E+00	1.83E-04	3.16E-04	4.41E-05	1.05E-04	Daycare	1.71E-09	3.96E-08	1.50E-08	0.06
564330_418385C	564330	4183850	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.75E-04	3.02E-04	4.22E-05	1.00E-04	Daycare	1.60E-09	3.72E-08	1.43E-08	0.05
564310_418385C	564310	4183850	1.12E-04	1.05E-04	1.04E-04	0.00E+00	1.68E-04	2.89E-04	4.05E-05	9.62E-05	Daycare	1.52E-09	3.51E-08	1.37E-08	0.05
564450_418383C	564450	4183830	1.83E-04	1.74E-04	1.71E-04	0.00E+00	2.34E-04	4.04E-04	5.65E-05	1.34E-04	potential residence	2.49E-09	5.78E-08	1.93E-08	0.08
564430_418383C	564430	4183830	1.71E-04	1.62E-04	1.60E-04	0.00E+00	2.29E-04	3.96E-04	5.53E-05	1.32E-04	potential residence	2.33E-09	5.41E-08	1.88E-08	0.08
564410_418383C	564410	4183830	1.60E-04	1.51E-04	1.49E-04	0.00E+00	2.23E-04	3.85E-04	5.38E-05	1.28E-04	potential residence	2.17E-09	5.04E-08	1.83E-08	0.07
564390_418383C	564390	4183830	1.49E-04	1.41E-04	1.39E-04	0.00E+00	2.15E-04	3.71E-04	5.19E-05	1.23E-04	potential residence	2.02E-09	4.68E-08	1.76E-08	0.07
564370_418383C	564370	4183830	1.39E-04	1.31E-04	1.29E-04	0.00E+00	2.07E-04	3.56E-04	4.98E-05	1.19E-04	potential residence	1.88E-09	4.36E-08	1.69E-08	0.06
564350_418383C	564350	4183830	1.30E-04	1.23E-04	1.21E-04	0.00E+00	1.98E-04	3.41E-04	4.76E-05	1.13E-04	Daycare	1.76E-09	4.08E-08	1.61E-08	0.06
564330_418383C	564330	4183830	1.21E-04	1.14E-04	1.13E-04	0.00E+00	1.87E-04	3.23E-04	4.51E-05	1.07E-04	Daycare	1.64E-09	3.81E-08	1.53E-08	0.06
564310_418383C	564310	4183830	1.15E-04	1.08E-04	1.06E-04	0.00E+00	1.79E-04	3.08E-04	4.31E-05	1.02E-04	Daycare	1.56E-09	3.60E-08	1.46E-08	0.05
564430_418381C	564430	4183810	1.80E-04	1.70E-04	1.67E-04	0.00E+00	2.56E-04	4.41E-04	6.16E-05	1.47E-04	potential residence	2.44E-09	5.66E-08	2.09E-08	0.08
564410_418381C	564410	4183810	1.67E-04	1.58E-04	1.56E-04	0.00E+00	2.48E-04	4.28E-04	5.97E-05	1.42E-04	potential residence	2.27E-09	5.27E-08	2.02E-08	0.08
564390_418381C	564390	4183810	1.54E-04	1.46E-04	1.43E-04	0.00E+00	2.36E-04	4.07E-04	5.69E-05	1.35E-04	potential residence	2.09E-09	4.85E-08	1.93E-08	0.07
564370_418381C	564370	4183810	1.44E-04	1.36E-04	1.34E-04	0.00E+00	2.25E-04	3.89E-04	5.44E-05	1.29E-04	potential residence	1.95E-09	4.52E-08	1.84E-08	0.07
564350_418381C	564350	4183810	1.34E-04	1.26E-04	1.25E-04	0.00E+00	2.14E-04	3.69E-04	5.16E-05	1.23E-04	potential residence	1.82E-09	4.22E-08	1.74E-08	0.06
564330_418381C	564330	4183810	1.26E-04	1.18E-04	1.17E-04	0.00E+00	2.02E-04	3.48E-04	4.87E-05	1.16E-04	Daycare	1.71E-09	3.95E-08	1.64E-08	0.06
564390_418379C	564390	4183790	1.61E-04	1.52E-04	1.49E-04	0.00E+00	2.61E-04	4.50E-04	6.29E-05	1.50E-04	potential residence	2.18E-09	5.05E-08	2.12E-08	0.07
564370_418379C	564370	4183790	1.49E-04	1.40E-04	1.38E-04	0.00E+00	2.46E-04	4.25E-04	5.94E-05	1.41E-04	potential residence	2.02E-09	4.68E-08	2.00E-08	0.07
565230_418339C	565230	4183390	7.77E-04	7.39E-04	7.28E-04	0.00E+00	5.29E-04	9.13E-04	1.28E-04	3.03E-04	Daycare	1.05E-08	2.46E-07	4.54E-08	0.30
565250_418339C	565250	4183390	7.26E-04	6.91E-04	6.81E-04	0.00E+00	5.01E-04	8.64E-04	1.21E-04	2.87E-04	Daycare	9.85E-09	2.30E-07	4.30E-08	0.28
565230_418337C	565230	4183370	7.63E-04	7.26E-04	7.15E-04	0.00E+00	5.23E-04	9.03E-04	1.27E-04	3.00E-04	Daycare	1.04E-08	2.41E-07	4.49E-08	0.30
565250_418337C	565250	4183370	7.16E-04	6.81E-04	6.70E-04	0.00E+00	4.95E-04	8.55E-04	1.20E-04	2.84E-04	Daycare	9.71E-09	2.26E-07	4.25E-08	0.28
565230_418335C	565230	4183350	7.50E-04	7.12E-04	7.01E-04	0.00E+00	5.19E-04	8.96E-04	1.26E-04	2.98E-04	Daycare	1.02E-08	2.37E-07	4.45E-08	0.29
565250_418335C	565250	4183350	7.06E-04	6.70E-04	6.60E-04	0.00E+00	4.92E-04	8.50E-04	1.19E-04	2.82E-04	Daycare	9.57E-09	2.23E-07	4.22E-08	0.27

All Receptors - Construction Cancer Risk

Health Risk for Onsite (Block 1) Receptors

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Mitigated DPM (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	0	0	0	306	3.25E-03	1.42E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	0	0	365	3.74E-03	5.60E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	0	0	228	2.30E-03	3.30E-04	5.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	0	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	91	270	0	361	4.00E-03	5.20E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	365	0	365	6.97E-03	1.12E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	95	271	366	9.70E-04	9.00E-05	9.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	2.80E-04	4.00E-05	0.00E+00

				Total Mitigated DPM (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.12E-04	2.41E-06	1.52E-06
2023	1	1/1/2023	12/31/2023	1.08E-04	8.65E-07	5.45E-07
2024	1	1/1/2024	8/15/2024	1.06E-04	8.93E-07	5.63E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.16E-04	7.93E-07	5.00E-07
2027	2	1/1/2027	12/31/2027	2.01E-04	1.57E-06	9.87E-07
2028	2	1/1/2028	12/31/2028	2.78E-05	4.01E-07	2.53E-07
2029	2	1/1/2029	2/13/2029	6.68E-05	3.96E-07	2.50E-07

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	2<16
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572
Fraction Of Time At Home	FAH	unitless	1	1	1
Exposure Frequency	EF	days/year	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3
Inhalation Absorption Factor	A	unitless	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70

Intake Factor for Inhalation, IF (m^3/kg-day)

	Year	Equation	3rd Trimester	0<2	2<16
Phase 1 Construction	2022	DBR*FAH*EF*ED*ASF*A*CF/AT	0.000	0.000	0.000
	2023		0.000	0.000	0.000
	2024		0.000	0.000	0.000
Inactive	2025		0.000	0.000	0.000
Phase 2 Construction	2026		0.012	0.110	0.000
	2027		0.000	0.149	0.000
	2028		0.000	0.039	0.017
	2029		0.000	0.000	0.003

Risk Calculation Part 1, R1

Year		3rd Trimester	0<2	2<16
2022	IF*CPF*CF	0.00E+00	0.00E+00	0.00E+00
2023		0.00E+00	0.00E+00	0.00E+00
2024		0.00E+00	0.00E+00	0.00E+00
2025		0.00E+00	0.00E+00	0.00E+00
2026		1.36E-05	1.21E-04	0.00E+00
2027		0.00E+00	1.64E-04	0.00E+00
2028		0.00E+00	4.27E-05	1.92E-05
2029		0.00E+00	0.00E+00	3.12E-06

MAX	Cancer Risk	UTM X	UTM Y
Mitigated	4.92	564710	4183530

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

			Mitigated								Receptor Type
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	
564750_418351C	564750	4183510	1.91E-04	6.83E-05	7.05E-05	0.00E+00	7.27E-03	1.26E-02	1.76E-03	4.17E-03	Building B
564770_418351C	564770	4183510	1.41E-04	5.07E-05	5.23E-05	0.00E+00	5.88E-03	1.02E-02	1.42E-03	3.38E-03	Building B
564710_418353C	564710	4183530	1.83E-04	6.57E-05	6.78E-05	0.00E+00	1.13E-02	1.95E-02	2.72E-03	6.49E-03	Building B
564730_418353C	564730	4183530	1.37E-04	4.91E-05	5.06E-05	0.00E+00	8.72E-03	1.50E-02	2.10E-03	5.01E-03	Building B
564710_418355C	564710	4183550	1.05E-04	3.75E-05	3.87E-05	0.00E+00	9.04E-03	1.56E-02	2.17E-03	5.19E-03	Building B
564750_418355C	564750	4183550	7.44E-05	2.67E-05	2.75E-05	0.00E+00	5.96E-03	1.03E-02	1.43E-03	3.42E-03	Building A
564770_418355C	564770	4183550	6.41E-05	2.30E-05	2.37E-05	0.00E+00	4.95E-03	8.53E-03	1.19E-03	2.84E-03	Building A
564790_418355C	564790	4183550	5.68E-05	2.04E-05	2.10E-05	0.00E+00	4.21E-03	7.27E-03	1.01E-03	2.42E-03	Building A
564730_418357C	564730	4183570	6.12E-05	2.19E-05	2.27E-05	0.00E+00	5.46E-03	9.41E-03	1.31E-03	3.13E-03	Building A
564750_418357C	564750	4183570	5.40E-05	1.94E-05	2.00E-05	0.00E+00	4.66E-03	8.03E-03	1.12E-03	2.67E-03	Building A
564770_418357C	564770	4183570	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.02E-03	6.94E-03	9.66E-04	2.31E-03	Building A
564730_418359C	564730	4183590	4.42E-05	1.58E-05	1.64E-05	0.00E+00	3.84E-03	6.63E-03	9.23E-04	2.21E-03	Building A

Risk Calculation Part 2

$\sum R1 \cdot C_{DPM}$			
3rd Trimester	0<2	2<16	Total
9.86E-08	3.02E-06	4.67E-08	3.17
7.98E-08	2.44E-06	3.78E-08	2.56
1.53E-07	4.69E-06	7.24E-08	4.92
1.18E-07	3.62E-06	5.59E-08	3.79
1.23E-07	3.75E-06	5.79E-08	3.93
8.08E-08	2.47E-06	3.81E-08	2.59
6.71E-08	2.05E-06	3.17E-08	2.15
5.72E-08	1.75E-06	2.70E-08	1.83
7.40E-08	2.26E-06	3.49E-08	2.37
6.32E-08	1.93E-06	2.98E-08	2.03
5.46E-08	1.67E-06	2.57E-08	1.75
5.21E-08	1.59E-06	2.46E-08	1.67

All Receptors - Construction Hazard Index

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Mitigated DPM (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	91	215	0	306	3.25E-03	1.42E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	365	0	365	3.74E-03	5.60E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	150	78	228	2.30E-03	3.30E-04	5.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	507	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	0	0	361	361	4.00E-03	5.20E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	0	365	365	6.97E-03	1.12E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	0	366	366	9.70E-04	9.00E-05	9.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	2.80E-04	4.00E-05	0.00E+00

				Total Mitigated DPM (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.12E-04	2.41E-06	1.52E-06
2023	1	1/1/2023	12/31/2023	1.08E-04	8.65E-07	5.45E-07
2024	1	1/1/2024	8/15/2024	1.06E-04	8.93E-07	5.63E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.16E-04	7.93E-07	5.00E-07
2027	2	1/1/2027	12/31/2027	2.01E-04	1.57E-06	9.87E-07
2028	2	1/1/2028	12/31/2028	2.78E-05	4.01E-07	2.53E-07
2029	2	1/1/2029	2/13/2029	6.68E-05	3.96E-07	2.50E-07

Risk Factors

	Abbreviation	UOM	
Chronic Inhalation	REL	ug/m^3	5

MAX	HI	UTM X	UTM Y
Mitigated	0.01	564650	4183490
receptor type	potential residence		

MAX	HI	UTM X	UTM Y
Mitigated	0.00	564710	4183530
receptor type	Building B		

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

			Mitigated								Receptor Type	C_{DPM}/REL		
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564550_4183170	564550	4183170	1.66E-04	1.55E-04	1.53E-04	0.00E+00	2.32E-04	4.00E-04	5.62E-05	1.33E-04	potential residence	0.00	2027	0.00
564570_4183170	564570	4183170	1.71E-04	1.59E-04	1.57E-04	0.00E+00	2.42E-04	4.18E-04	5.86E-05	1.39E-04	potential residence	0.00	2027	0.00
564590_4183170	564590	4183170	1.76E-04	1.64E-04	1.61E-04	0.00E+00	2.52E-04	4.35E-04	6.11E-05	1.44E-04	potential residence	0.00	2027	0.00
564610_4183170	564610	4183170	1.81E-04	1.68E-04	1.66E-04	0.00E+00	2.62E-04	4.53E-04	6.36E-05	1.50E-04	potential residence	0.00	2027	0.00
564630_4183170	564630	4183170	1.87E-04	1.74E-04	1.71E-04	0.00E+00	2.75E-04	4.75E-04	6.67E-05	1.58E-04	potential residence	0.00	2027	0.00
564650_4183170	564650	4183170	1.93E-04	1.80E-04	1.78E-04	0.00E+00	2.90E-04	5.00E-04	7.02E-05	1.66E-04	potential residence	0.00	2027	0.00
564670_4183170	564670	4183170	2.01E-04	1.87E-04	1.84E-04	0.00E+00	3.05E-04	5.26E-04	7.39E-05	1.75E-04	potential residence	0.00	2027	0.00
564690_4183170	564690	4183170	2.09E-04	1.94E-04	1.91E-04	0.00E+00	3.22E-04	5.55E-04	7.79E-05	1.84E-04	potential residence	0.00	2027	0.00
564510_4183190	564510	4183190	1.69E-04	1.58E-04	1.56E-04	0.00E+00	2.35E-04	4.06E-04	5.70E-05	1.35E-04	potential residence	0.00	2027	0.00
564530_4183190	564530	4183190	1.75E-04	1.63E-04	1.60E-04	0.00E+00	2.45E-04	4.22E-04	5.93E-05	1.40E-04	potential residence	0.00	2027	0.00
564550_4183190	564550	4183190	1.80E-04	1.68E-04	1.65E-04	0.00E+00	2.55E-04	4.39E-04	6.17E-05	1.46E-04	potential residence	0.00	2027	0.00
564570_4183190	564570	4183190	1.85E-04	1.73E-04	1.70E-04	0.00E+00	2.66E-04	4.59E-04	6.45E-05	1.52E-04	potential residence	0.00	2027	0.00
564590_4183190	564590	4183190	1.91E-04	1.78E-04	1.75E-04	0.00E+00	2.78E-04	4.80E-04	6.74E-05	1.59E-04	potential residence	0.00	2027	0.00
564610_4183190	564610	4183190	1.97E-04	1.83E-04	1.81E-04	0.00E+00	2.91E-04	5.03E-04	7.06E-05	1.67E-04	potential residence	0.00	2027	0.00
564630_4183190	564630	4183190	2.03E-04	1.89E-04	1.87E-04	0.00E+00	3.06E-04	5.28E-04	7.42E-05	1.75E-04	potential residence	0.00	2027	0.00
564650_4183190	564650	4183190	2.11E-04	1.96E-04	1.94E-04	0.00E+00	3.23E-04	5.57E-04	7.83E-05	1.85E-04	potential residence	0.00	2027	0.00
564670_4183190	564670	4183190	2.19E-04	2.04E-04	2.01E-04	0.00E+00	3.40E-04	5.87E-04	8.25E-05	1.95E-04	potential residence	0.00	2027	0.00
564690_4183190	564690	4183190	2.27E-04	2.11E-04	2.08E-04	0.00E+00	3.59E-04	6.20E-04	8.71E-05	2.06E-04	potential residence	0.00	2027	0.00
564710_4183190	564710	4183190	2.37E-04	2.21E-04	2.17E-04	0.00E+00	3.81E-04	6.58E-04	9.23E-05	2.19E-04	potential residence	0.00	2027	0.00
564730_4183190	564730	4183190	2.47E-04	2.30E-04	2.26E-04	0.00E+00	4.02E-04	6.94E-04	9.74E-05	2.31E-04	potential residence	0.00	2027	0.00
564470_4183210	564470	4183210	1.71E-04	1.60E-04	1.57E-04	0.00E+00	2.41E-04	4.16E-04	5.84E-05	1.38E-04	potential residence	0.00	2027	0.00
564490_4183210	564490	4183210	1.77E-04	1.65E-04	1.63E-04	0.00E+00	2.50E-04	4.31E-04	6.05E-05	1.43E-04	potential residence	0.00	2027	0.00
564510_4183210	564510	4183210	1.83E-04	1.71E-04	1.69E-04	0.00E+00	2.59E-04	4.48E-04	6.29E-05	1.49E-04	potential residence	0.00	2027	0.00
564530_4183210	564530	4183210	1.90E-04	1.77E-04	1.74E-04	0.00E+00	2.70E-04	4.66E-04	6.54E-05	1.55E-04	potential residence	0.00	2027	0.00
564550_4183210	564550	4183210	1.96E-04	1.82E-04	1.80E-04	0.00E+00	2.81E-04	4.86E-04	6.82E-05	1.61E-04	potential residence	0.00	2027	0.00
564570_4183210	564570	4183210	2.02E-04	1.88E-04	1.85E-04	0.00E+00	2.94E-04	5.08E-04	7.13E-05	1.69E-04	potential residence	0.00	2027	0.00
564590_4183210	564590	4183210	2.08E-04	1.94E-04	1.91E-04	0.00E+00	3.09E-04	5.33E-04	7.49E-05	1.77E-04	potential residence	0.00	2027	0.00
564610_4183210	564610	4183210	2.15E-04	2.01E-04	1.98E-04	0.00E+00	3.25E-04	5.61E-04	7.88E-05	1.86E-04	potential residence	0.00	2027	0.00
564630_4183210	564630	4183210	2.22E-04	2.07E-04	2.04E-04	0.00E+00	3.42E-04	5.90E-04	8.29E-05	1.96E-04	potential residence	0.00	2027	0.00
564650_4183210	564650	4183210	2.31E-04	2.15E-04	2.12E-04	0.00E+00	3.62E-04	6.25E-04	8.77E-05	2.07E-04	potential residence	0.00	2027	0.00
564670_4183210	564670	4183210	2.39E-04	2.23E-04	2.19E-04	0.00E+00	3.82E-04	6.60E-04	9.26E-05	2.19E-04	potential residence	0.00	2027	0.00
564690_4183210	564690	4183210	2.50E-04	2.32E-04	2.29E-04	0.00E+00	4.07E-04	7.03E-04	9.86E-05	2.33E-04	potential residence	0.00	2027	0.00
564430_4183230	564430	4183230	1.70E-04	1.59E-04	1.56E-04	0.00E+00	2.48E-04	4.28E-04	6.01E-05	1.42E-04	potential residence	0.00	2027	0.00
564450_4183230	564450	4183230	1.77E-04	1.65E-04	1.63E-04	0.00E+00	2.57E-04	4.44E-04	6.23E-05	1.47E-04	potential residence	0.00	2027	0.00
564470_4183230	564470	4183230	1.85E-04	1.72E-04	1.70E-04	0.00E+00	2.67E-04	4.60E-04	6.46E-05	1.53E-04	potential residence	0.00	2027	0.00
564490_4183230	564490	4183230	1.92E-04	1.79E-04	1.76E-04	0.00E+00	2.76E-04	4.77E-04	6.70E-05	1.59E-04	potential residence	0.00	2027	0.00
564510_4183230	564510	4183230	1.99E-04	1.86E-04	1.83E-04	0.00E+00	2.88E-04	4.96E-04	6.97E-05	1.65E-04	potential residence	0.00	2027	0.00
564530_4183230	564530	4183230	2.07E-04	1.92E-04	1.90E-04	0.00E+00	2.99E-04	5.17E-04	7.26E-05	1.72E-04	potential residence	0.00	2027	0.00
564550_4183230	564550	4183230	2.14E-04	1.99E-04	1.96E-04	0.00E+00	3.13E-04	5.41E-04	7.60E-05	1.80E-04	potential residence	0.00	2027	0.00
564570_4183230	564570	4183230	2.21E-04	2.06E-04	2.03E-04	0.00E+00	3.29E-04	5.67E-04	7.97E-05	1.88E-04	potential residence	0.00	2027	0.00
564590_4183230	564590	4183230	2.29E-04	2.13E-04	2.10E-04	0.00E+00	3.46E-04	5.97E-04	8.38E-05	1.98E-04	potential residence	0.00	2027	0.00
564610_4183230	564610	4183230	2.36E-04	2.20E-04	2.17E-04	0.00E+00	3.64E-04	6.29E-04	8.83E-05	2.09E-04	potential residence	0.00	2027	0.00
564630_4183230	564630	4183230	2.45E-04	2.28E-04	2.24E-04	0.00E+00	3.86E-04	6.66E-04	9.34E-05	2.21E-04	potential residence	0.00	2027	0.00
564650_4183230	564650	4183230	2.54E-04	2.36E-04	2.33E-04	0.00E+00	4.09E-04	7.07E-04	9.92E-05	2.35E-04	potential residence	0.00	2027	0.00
564670_4183230	564670	4183230	2.64E-04	2.46E-04	2.42E-04	0.00E+00	4.36E-04	7.52E-04	1.05E-04	2.50E-04	potential residence	0.00	2027	0.00
564390_4183250	564390	4183250	1.66E-04	1.55E-04	1.52E-04	0.00E+00	2.52E-04	4.35E-04	6.11E-05	1.45E-04	potential residence	0.00	2027	0.00
564410_4183250	564410	4183250	1.74E-04	1.62E-04	1.60E-04	0.00E+00	2.63E-04	4.55E-04	6.38E-05	1.51E-04	potential residence	0.00	2027	0.00
564430_4183250	564430	4183250	1.83E-04	1.70E-04	1.68E-04	0.00E+00	2.74E-04	4.74E-04	6.65E-05	1.57E-04	potential residence	0.00	2027	0.00
564450_4183250	564450	4183250	1.91E-04	1.78E-04	1.75E-04	0.00E+00	2.85E-04	4.93E-04	6.92E-05	1.64E-04	potential residence	0.00	2027	0.00
564470_4183250	564470	4183250	2.00E-04	1.86E-04	1.83E-04	0.00E+00	2.97E-04	5.12E-04	7.19E-05	1.70E-04	potential residence	0.00	2027	0.00
564490_4183250	564490	4183250	2.09E-04	1.94E-04	1.91E-04	0.00E+00	3.08E-04	5.32E-04	7.47E-05	1.77E-04	potential residence	0.00	2027	0.00
564510_4183250	564510	4183250	2.17E-04	2.02E-04	1.99E-04	0.00E+00	3.21E-04	5.54E-04	7.78E-05	1.84E-04	potential residence	0.00	2027	0.00
564530_4183250	564530	4183250	2.26E-04	2.10E-04	2.07E-04	0.00E+00	3.35E-04	5.78E-04	8.12E-05	1.92E-04	potential residence	0.00	2027	0.00
564550_4183250	564550	4183250	2.35E-04	2.18E-04	2.15E-04	0.00E+00	3.51E-04	6.06E-04	8.51E-05	2.01E-04	potential residence	0.00	2027	0.00
564570_4183250	564570	4183250	2.43E-04	2.26E-04	2.23E-04	0.00E+00	3.69E-04	6.37E-04	8.94E-05	2.12E-04	potential residence	0.00	2027	0.00
564590_4183250	564590	4183250	2.52E-04	2.35E-04	2.31E-04	0.00E+00	3.90E-04	6.73E-04	9.45E-05	2.24E-04	potential residence	0.00	2027	0.00
564610_4183250	564610	4183250	2.61E-04	2.43E-04	2.40E-04	0.00E+00	4.13E-04	7.14E-04	1.00E-04	2.37E-04	potential residence	0.00	2027	0.00
564630_4183250	564630	4183250	2.71E-04	2.52E-04	2.49E-04	0.00E+00	4.40E-04	7.59E-04	1.06E-04	2.52E-04	potential residence	0.00	2027	0.00
564650_4183250	564650	4183250	2.81E-04	2.62E-04	2.58E-04	0.00E+00	4.68E-04	8.07E-04	1.13E-04	2.68E-04	potential residence	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

			Mitigated									C_{DPM}/REL		
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	Max DPM	Max Year	HI
564350_4183270	564350	4183270	1.59E-04	1.48E-04	1.46E-04	0.00E+00	2.50E-04	4.32E-04	6.06E-05	1.44E-04	potential residence	0.00	2027	0.00
564370_4183270	564370	4183270	1.68E-04	1.56E-04	1.54E-04	0.00E+00	2.64E-04	4.56E-04	6.40E-05	1.51E-04	potential residence	0.00	2027	0.00
564390_4183270	564390	4183270	1.77E-04	1.64E-04	1.62E-04	0.00E+00	2.78E-04	4.80E-04	6.73E-05	1.59E-04	potential residence	0.00	2027	0.00
564410_4183270	564410	4183270	1.86E-04	1.73E-04	1.71E-04	0.00E+00	2.91E-04	5.03E-04	7.06E-05	1.67E-04	potential residence	0.00	2027	0.00
564430_4183270	564430	4183270	1.96E-04	1.82E-04	1.80E-04	0.00E+00	3.05E-04	5.27E-04	7.39E-05	1.75E-04	potential residence	0.00	2027	0.00
564450_4183270	564450	4183270	2.06E-04	1.92E-04	1.89E-04	0.00E+00	3.18E-04	5.49E-04	7.72E-05	1.82E-04	potential residence	0.00	2027	0.00
564470_4183270	564470	4183270	2.17E-04	2.01E-04	1.99E-04	0.00E+00	3.33E-04	5.74E-04	8.06E-05	1.91E-04	potential residence	0.00	2027	0.00
564490_4183270	564490	4183270	2.28E-04	2.11E-04	2.08E-04	0.00E+00	3.47E-04	5.99E-04	8.42E-05	1.99E-04	potential residence	0.00	2027	0.00
564510_4183270	564510	4183270	2.38E-04	2.22E-04	2.18E-04	0.00E+00	3.63E-04	6.27E-04	8.80E-05	2.08E-04	potential residence	0.00	2027	0.00
564530_4183270	564530	4183270	2.48E-04	2.31E-04	2.27E-04	0.00E+00	3.77E-04	6.51E-04	9.15E-05	2.16E-04	potential residence	0.00	2027	0.00
564550_4183270	564550	4183270	2.59E-04	2.41E-04	2.37E-04	0.00E+00	3.97E-04	6.85E-04	9.62E-05	2.27E-04	potential residence	0.00	2027	0.00
564570_4183270	564570	4183270	2.69E-04	2.51E-04	2.47E-04	0.00E+00	4.19E-04	7.24E-04	1.02E-04	2.40E-04	potential residence	0.00	2027	0.00
564590_4183270	564590	4183270	2.80E-04	2.61E-04	2.57E-04	0.00E+00	4.46E-04	7.70E-04	1.08E-04	2.56E-04	potential residence	0.00	2027	0.00
564610_4183270	564610	4183270	2.91E-04	2.70E-04	2.66E-04	0.00E+00	4.73E-04	8.17E-04	1.15E-04	2.71E-04	potential residence	0.00	2027	0.00
564310_4183290	564310	4183290	1.50E-04	1.39E-04	1.37E-04	0.00E+00	2.41E-04	4.16E-04	5.84E-05	1.38E-04	potential residence	0.00	2027	0.00
564330_4183290	564330	4183290	1.59E-04	1.47E-04	1.45E-04	0.00E+00	2.57E-04	4.43E-04	6.22E-05	1.47E-04	potential residence	0.00	2027	0.00
564350_4183290	564350	4183290	1.68E-04	1.56E-04	1.54E-04	0.00E+00	2.73E-04	4.71E-04	6.61E-05	1.56E-04	potential residence	0.00	2027	0.00
564370_4183290	564370	4183290	1.78E-04	1.65E-04	1.62E-04	0.00E+00	2.89E-04	5.00E-04	7.01E-05	1.66E-04	potential residence	0.00	2027	0.00
564390_4183290	564390	4183290	1.88E-04	1.74E-04	1.72E-04	0.00E+00	3.06E-04	5.28E-04	7.42E-05	1.75E-04	potential residence	0.00	2027	0.00
564410_4183290	564410	4183290	1.99E-04	1.84E-04	1.82E-04	0.00E+00	3.23E-04	5.58E-04	7.84E-05	1.85E-04	potential residence	0.00	2027	0.00
564430_4183290	564430	4183290	2.10E-04	1.95E-04	1.92E-04	0.00E+00	3.40E-04	5.88E-04	8.25E-05	1.95E-04	potential residence	0.00	2027	0.00
564450_4183290	564450	4183290	2.23E-04	2.07E-04	2.04E-04	0.00E+00	3.59E-04	6.20E-04	8.71E-05	2.06E-04	potential residence	0.00	2027	0.00
564470_4183290	564470	4183290	2.35E-04	2.18E-04	2.15E-04	0.00E+00	3.76E-04	6.49E-04	9.12E-05	2.15E-04	potential residence	0.00	2027	0.00
564490_4183290	564490	4183290	2.48E-04	2.30E-04	2.27E-04	0.00E+00	3.94E-04	6.80E-04	9.56E-05	2.26E-04	potential residence	0.00	2027	0.00
564510_4183290	564510	4183290	2.62E-04	2.43E-04	2.39E-04	0.00E+00	4.13E-04	7.13E-04	1.00E-04	2.37E-04	potential residence	0.00	2027	0.00
564530_4183290	564530	4183290	2.74E-04	2.54E-04	2.50E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence	0.00	2027	0.00
564550_4183290	564550	4183290	2.86E-04	2.66E-04	2.62E-04	0.00E+00	4.53E-04	7.81E-04	1.10E-04	2.60E-04	potential residence	0.00	2027	0.00
564570_4183290	564570	4183290	2.99E-04	2.78E-04	2.74E-04	0.00E+00	4.80E-04	8.29E-04	1.16E-04	2.75E-04	potential residence	0.00	2027	0.00
564290_4183310	564290	4183310	1.47E-04	1.37E-04	1.35E-04	0.00E+00	2.41E-04	4.16E-04	5.84E-05	1.38E-04	potential residence	0.00	2027	0.00
564310_4183310	564310	4183310	1.56E-04	1.45E-04	1.43E-04	0.00E+00	2.58E-04	4.46E-04	6.26E-05	1.48E-04	potential residence	0.00	2027	0.00
564330_4183310	564330	4183310	1.66E-04	1.54E-04	1.52E-04	0.00E+00	2.77E-04	4.78E-04	6.72E-05	1.59E-04	potential residence	0.00	2027	0.00
564350_4183310	564350	4183310	1.76E-04	1.63E-04	1.61E-04	0.00E+00	2.96E-04	5.11E-04	7.19E-05	1.70E-04	potential residence	0.00	2027	0.00
564370_4183310	564370	4183310	1.88E-04	1.74E-04	1.71E-04	0.00E+00	3.17E-04	5.47E-04	7.69E-05	1.82E-04	potential residence	0.00	2027	0.00
564390_4183310	564390	4183310	2.00E-04	1.85E-04	1.82E-04	0.00E+00	3.38E-04	5.84E-04	8.21E-05	1.94E-04	potential residence	0.00	2027	0.00
564410_4183310	564410	4183310	2.12E-04	1.96E-04	1.94E-04	0.00E+00	3.60E-04	6.22E-04	8.75E-05	2.07E-04	potential residence	0.00	2027	0.00
564430_4183310	564430	4183310	2.26E-04	2.09E-04	2.06E-04	0.00E+00	3.82E-04	6.60E-04	9.28E-05	2.19E-04	potential residence	0.00	2027	0.00
564450_4183310	564450	4183310	2.41E-04	2.22E-04	2.19E-04	0.00E+00	4.06E-04	7.01E-04	9.85E-05	2.33E-04	potential residence	0.00	2027	0.00
564470_4183310	564470	4183310	2.56E-04	2.37E-04	2.33E-04	0.00E+00	4.29E-04	7.40E-04	1.04E-04	2.46E-04	potential residence	0.00	2027	0.00
564490_4183310	564490	4183310	2.71E-04	2.51E-04	2.47E-04	0.00E+00	4.50E-04	7.77E-04	1.09E-04	2.58E-04	potential residence	0.00	2027	0.00
564510_4183310	564510	4183310	2.87E-04	2.65E-04	2.62E-04	0.00E+00	4.72E-04	8.16E-04	1.15E-04	2.71E-04	potential residence	0.00	2027	0.00
564530_4183310	564530	4183310	3.02E-04	2.80E-04	2.76E-04	0.00E+00	4.95E-04	8.55E-04	1.20E-04	2.84E-04	potential residence	0.00	2027	0.00
564290_4183330	564290	4183330	1.53E-04	1.41E-04	1.39E-04	0.00E+00	2.56E-04	4.42E-04	6.21E-05	1.47E-04	potential residence	0.00	2027	0.00
564310_4183330	564310	4183330	1.63E-04	1.50E-04	1.48E-04	0.00E+00	2.76E-04	4.77E-04	6.70E-05	1.58E-04	potential residence	0.00	2027	0.00
564330_4183330	564330	4183330	1.74E-04	1.60E-04	1.58E-04	0.00E+00	2.98E-04	5.14E-04	7.23E-05	1.71E-04	potential residence	0.00	2027	0.00
564350_4183330	564350	4183330	1.86E-04	1.71E-04	1.68E-04	0.00E+00	3.22E-04	5.56E-04	7.81E-05	1.84E-04	potential residence	0.00	2027	0.00
564370_4183330	564370	4183330	1.98E-04	1.82E-04	1.80E-04	0.00E+00	3.48E-04	6.00E-04	8.44E-05	1.99E-04	potential residence	0.00	2027	0.00
564390_4183330	564390	4183330	2.12E-04	1.95E-04	1.92E-04	0.00E+00	3.75E-04	6.47E-04	9.10E-05	2.15E-04	potential residence	0.00	2027	0.00
564410_4183330	564410	4183330	2.27E-04	2.09E-04	2.06E-04	0.00E+00	4.03E-04	6.95E-04	9.78E-05	2.31E-04	potential residence	0.00	2027	0.00
564430_4183330	564430	4183330	2.42E-04	2.23E-04	2.20E-04	0.00E+00	4.31E-04	7.44E-04	1.05E-04	2.47E-04	potential residence	0.00	2027	0.00
564450_4183330	564450	4183330	2.59E-04	2.39E-04	2.35E-04	0.00E+00	4.61E-04	7.96E-04	1.12E-04	2.64E-04	potential residence	0.00	2027	0.00
564470_4183330	564470	4183330	2.78E-04	2.56E-04	2.52E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	potential residence	0.00	2027	0.00
564490_4183330	564490	4183330	2.95E-04	2.72E-04	2.69E-04	0.00E+00	5.18E-04	8.95E-04	1.26E-04	2.97E-04	potential residence	0.00	2027	0.00
564270_4183350	564270	4183350	1.49E-04	1.37E-04	1.35E-04	0.00E+00	2.49E-04	4.30E-04	6.06E-05	1.43E-04	potential residence	0.00	2027	0.00
564290_4183350	564290	4183350	1.59E-04	1.46E-04	1.44E-04	0.00E+00	2.70E-04	4.66E-04	6.57E-05	1.55E-04	potential residence	0.00	2027	0.00
564310_4183350	564310	4183350	1.70E-04	1.55E-04	1.53E-04	0.00E+00	2.93E-04	5.06E-04	7.13E-05	1.68E-04	potential residence	0.00	2027	0.00
564330_4183350	564330	4183350	1.82E-04	1.66E-04	1.64E-04	0.00E+00	3.19E-04	5.51E-04	7.77E-05	1.83E-04	potential residence	0.00	2027	0.00
564350_4183350	564350	4183350	1.95E-04	1.78E-04	1.76E-04	0.00E+00	3.48E-04	6.01E-04	8.47E-05	2.00E-04	potential residence	0.00	2027	0.00
564370_4183350	564370	4183350	2.09E-04	1.91E-04	1.88E-04	0.00E+00	3.80E-04	6.56E-04	9.23E-05	2.18E-04	potential residence	0.00	2027	0.00
564390_4183350	564390	4183350	2.25E-04	2.05E-04	2.02E-04	0.00E+00	4.14E-04	7.14E-04	1.01E-04	2.37E-04	potential residence	0.00	2027	0.00
564410_4183350	564410	4183350	2.42E-04	2.21E-04	2.18E-04	0.00E+00	4.50E-04	7.77E-04	1.09E-04	2.58E-04	potential residence	0.00	2027	0.00
564430_4183350	564430	4183350	2.60E-04	2.38E-04	2.34E-04	0.00E+00	4.88E-04	8.42E-04	1.19E-04	2.80E-04	potential residence	0.00	2027	0.00
564450_4183350	564450	4183350	2.79E-04	2.56E-04	2.52E-04	0.00E+00	5.26E-04	9.09E-04	1.28E-04	3.02E-04	potential residence	0.00	2027	0.00
564270_4183370	564270	4183370	1.54E-04	1.40E-04	1.38E-04	0.00E+00	2.60E-04	4.50E-04	6.35E-05	1.49E-04	potential residence	0.00	2027	0.00
564290_4183370	564290	4183370	1.65E-04	1.50E-04	1.48E-04	0.00E+00	2.84E-04	4.91E-04	6.93E-05	1.63E-04	potential residence	0.00	2027	0.00
564310_4183370	564310	4183370	1.77E-04	1.61E-04	1.58E-04	0.00E+00	3.11E-04	5.37E-04	7.58E-05	1.78E-04	potential residence	0.00	2027	0.00
564330_4183370	564330	4183370	1.90E-04	1.72E-04	1.70E-04	0.00E+00	3.40E-04	5.88E-04	8.31E-05	1.95E-04	potential residence	0.00	2027	0.00
564350_4183370	564350	4183370	2.05E-04	1.85E-04	1.83E-04	0.00E+00	3.75E-04	6.48E-04	9.14E-05	2.15E-04	potential residence	0.00	2027	0.00
564370_4183370	564370	4183370	2.21E-04	2.00E-04	1.97E-04	0.00E+00	4.13E-04	7.13E-04	1.01E-04	2.37E-04	potential residence	0.00	2027	0.00
564390_4183370	564390	4183370	2.39E-04	2.15E-04	2.12E-04	0.00E+00	4.55E-04	7.86E-04	1.11E-04	2.61E-04	potential residence	0.00	2027	0.00
564410_4183370	564410	4183370	2.58E-04	2.33E-04	2.30E-04	0.00E+00	5.01E-04	8.65E-04	1.22E-04	2.87E-04	potential residence	0.00	2027	0.00
564250_4183390	564250	4183390	1.49E-04	1.34E-04	1.32E-04	0.00E+00	2.47E-04	4.28E-04	6.05E-05	1.42E-04	potential residence	0.00	2027	0.00
564270_4183390	564270	4183390	1.60E-04	1.44E-04	1.42E-04	0.00E+00	2.71E-04	4.68E-04	6.62E-05	1.55E-04	potential residence	0.00	2027	0.00
564290_4183390	564290	4183390	1.72E-04	1.54E-04	1.52E-04	0.00E+00	2.97E-04	5.14E-04	7.28E-05	1.70E-04	potential residence	0.00	2027	0.00
564310_4183390	564310	4183390	1.85E-04	1.66E-04	1.63E-04	0.00E+00	3.27E-04	5.66E-04	8.02E-05	1.88E-04	potential residence	0.00	2027	0.00
564330_4183390	564330	4183390	2.00E-04	1.78E-04	1.76E-04	0.00E+00	3.61E-04	6.24E-04	8.84E-05	2.07E-04	potential residence	0.00	2027	0.00
564350_4183390	564350	4183390	2.16E-04	1.92E-04	1.90E-04	0.00E+00	4.01E-04	6.93E-04	9.82E-05	2.30E-04	potential residence	0.00	2027	0.00
564370_4183390	564370	4183390	2.34E-04	2.08E-04	2.06E-04	0.00E+00	4.46E-04	7.72E-04	1.09E-04	2.56E-04	potential residence	0.00	2027	0.00
564690_4183390	564690	4183390	8.66E-04	8.01E-04	7.90E-04	0.00E+00	2.54E-03	4.38E-03	6.12E-04	1.46E-03	potential residence	0.00	2027	0.00
564710_4183390	564710	4183390	9.43E-04	8.68E-04	8.56E-04	0.00E+00	2.77E-03	4.77E-03	6.67E-04	1.59E-03	potential residence	0.00	2027	0.00
564250_4183410	564250	4183410	1.54E-04	1.37E-04	1.35E-04	0.00E+00	2.55E-04	4.41E-04	6.26E-05	1.46E-04	potential residence	0.00	2027	0.00
564270_4183410	564270	4183410	1.66E-04	1.47E-04	1.45E-04	0.00E+00	2.80E-04	4.84E-04	6.88E-05	1.60E-04	potential residence	0.00	2027	0.00
564290_4183410	564290	4183410	1.80E-04	1.58E-04	1.56E-04	0.00E+00	3.09E-04	5.34E-04	7.61E-05	1.77E-04	potential residence	0.00	2027	0.00
564310_4183410	564310	4183410	1.95E-04	1.71E-04	1.69E-04	0.00E+00	3.43E-04	5.93E-04	8.45E-05	1.96E-04	potential residence	0.00	2027	0.00
564330_4183410	564330	4183410	2.13E-04	1.85E-04	1.83E-04	0.00E+00	3.81E-04	6.60E-04	9.41E-05	2.18E-04	potential residence	0.00	2027	0.00
564570_4183410	564570	4183410	6.02E-04	5.57E-04	5.49E-04	0.00E+00	1.57E-03	2.71E-03	3.79E-04	9.01E-04	potential residence	0.00	2027	0.00
564590_4183410	564590	4183410	6.68E-04	6.19E-04	6.10E-04	0.00E+00	1.77E-03	3.05E-03	4.26E-04	1.01E-03	potential residence	0.00	2027	0.00
564690_4183410	564690	4183410	1.08E-03	9.88E-04	9.74E-04	0.00E+00	3.60E-03	6.20E-03	8.67E-04	2.06E-03	potential residence	0.01	2027	0.00
564710_4183410	564710	4183410	1.20E-03	1.09E-03	1.07E-03	0.00E+00	3.78E-03	6.53E-03	9.15E-04	2.17E-03	potential residence	0.01	2027	0.00
564230_4183430	564230	4183430	1.48E-04	1.30E-04	1.28E-04	0.00E+00	2.37E-04	4.11E-04	5.86E-05	1.36E-04	potential residence	0.00	2027	0.00
564250_4183430	564250	4183430	1.60E-04	1.40E-04	1.38E-04	0.00E+00	2.61E-04	4.51E-04	6.45E-05	1.49E-04	potential residence	0.00	2027	0.00
564270_4183430	564270	4183430	1.74E-04	1.51E-04	1.49E-04	0.00E+00	2.88E-04	4.98E-04	7.13E-05	1.65E-04	potential residence	0.00	2027	0.00
564290_4183430	564290	4183430	1.90E-04	1.63E-04	1.61E-04	0.00E+00	3.19E-04	5.53E-04	7.94E-05	1.83E-04	potential residence	0.00	2027	0.00
564550_4183430	564550	4183430	5.97E-04	5.49E-04	5.41E-04	0.00E+00	1.85E-03	3.20E-03	4.47E-04	1.06E-03	potential residence	0.00	2027	0.00
564570_4183430	564570	4183430	6.74E-04	6.22E-04	6.13E-04	0.00E+00	2.13E-03	3.67E-03	5.13E-04	1.22E-03	potential residence	0.00	2027	0.00
564590_4183430	564590	4183430	7.62E-04	7.04E-04	6.94E-04	0.00E+00	2.48E-03	4.28E-03	5.98E-04	1.42E-03	potential residence	0.00	2027	0.00
564630_4183430	564630	4183430	9.71E-04	8.95E-04	8.82E-04	0.00E+00	3.49E-03	6.02E-03	8.41E-04	2.00E-03	potential residence	0.01	2027	0.00
564650_4183430	564650	4183430	1.09E-03	1.00E-03	9.86E-04	0.00E+00	4.17E-03	7.19E-03	1.00E-03	2.39E-03	potential residence	0.01	2027	0.00
564730_4183430	564730	4183430	1.74E-03	1.56E-03	1.54E-03	0.00E+00	4.94E-03	8.53E-03	1.20E-03	2.83E-03	potential residence	0.01	2027	0.00
564230_4183450	564230	4183450	1.55E-04	1.33E-04	1.31E-04	0.00E+00	2.41E-04	4.18E-04	6.01E-05	1.38E-04	potential residence	0.00	2027	0.00
564250_4183450	564250	4183450	1.69E-04	1.43E-04	1.42E-04	0.00E+00	2.66E-04	4.61E-04	6.65E-05	1.52E-04	potential residence	0.00	2027	0.00
564570_4183450	564570	4183450	7.47E-04	6.84E-04	6.75E-04	0.00E+00	2.98E-03	5.15E-03	7.19E-04	1.71E-03	potential residence	0.01	2027	0.00
564590_4183450	564590	4183450	8.64E-04	7.92E-04	7.80E-04	0.00E+00	3.64E-03	6.28E-03	8.77E-04	2.09E-03	potential residence	0.01	2027	0.00
564610_4183450	564610	4183450	1.01E-03	9.20E-04	9.07E-04	0.00E+00	4.50E-03	7.76E-03	1.08E-03	2.58E-03	potential residence	0.01	2027	0.00
564690_4183450	564690	4183450	1.76E-03	1.60E-03	1.58E-03	0.00E+00	7.49E-03	1.29E-02	1.81E-03	4.30E-03	potential residence	0.01	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

			Mitigated								Receptor Type		C_{DPM}/REL		
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029			Max DPM	Max Year	HI
564710_418345C	564710	4183450	1.96E-03	1.80E-03	1.78E-03	0.00E+00	6.91E-03	1.19E-02	1.66E-03	3.96E-03	potential residence		0.01	2027	0.00
564730_418345C	564730	4183450	2.22E-03	2.06E-03	2.04E-03	0.00E+00	6.17E-03	1.06E-02	1.49E-03	3.54E-03	potential residence		0.01	2027	0.00
564450_418347C	564450	4183470	4.07E-04	3.45E-04	3.41E-04	0.00E+00	1.08E-03	1.86E-03	2.65E-04	6.17E-04	potential residence		0.00	2027	0.00
564470_418347C	564470	4183470	4.37E-04	3.80E-04	3.75E-04	0.00E+00	1.32E-03	2.28E-03	3.22E-04	7.58E-04	potential residence		0.00	2027	0.00
564490_418347C	564490	4183470	4.80E-04	4.25E-04	4.19E-04	0.00E+00	1.66E-03	2.87E-03	4.03E-04	9.52E-04	potential residence		0.00	2027	0.00
564530_418347C	564530	4183470	6.10E-04	5.50E-04	5.42E-04	0.00E+00	2.65E-03	4.57E-03	6.39E-04	1.52E-03	potential residence		0.00	2027	0.00
564550_418347C	564550	4183470	7.05E-04	6.36E-04	6.27E-04	0.00E+00	3.35E-03	5.79E-03	8.09E-04	1.92E-03	potential residence		0.01	2027	0.00
564570_418347C	564570	4183470	8.27E-04	7.46E-04	7.36E-04	0.00E+00	4.36E-03	7.52E-03	1.05E-03	2.50E-03	potential residence		0.01	2027	0.00
564590_418347C	564590	4183470	9.93E-04	8.89E-04	8.77E-04	0.00E+00	5.86E-03	1.01E-02	1.41E-03	3.36E-03	potential residence		0.01	2027	0.00
564650_418347C	564650	4183470	1.67E-03	1.51E-03	1.49E-03	0.00E+00	1.24E-02	2.13E-02	2.97E-03	7.09E-03	potential residence		0.02	2027	0.00
564670_418347C	564670	4183470	1.90E-03	1.76E-03	1.73E-03	0.00E+00	1.18E-02	2.04E-02	2.84E-03	6.79E-03	potential residence		0.02	2027	0.00
564690_418347C	564690	4183470	2.21E-03	2.06E-03	2.03E-03	0.00E+00	1.04E-02	1.80E-02	2.51E-03	5.99E-03	potential residence		0.02	2027	0.00
564710_418347C	564710	4183470	2.60E-03	2.45E-03	2.41E-03	0.00E+00	8.87E-03	1.53E-02	2.13E-03	5.09E-03	potential residence		0.02	2027	0.00
564730_418347C	564730	4183470	3.13E-03	2.95E-03	2.91E-03	0.00E+00	7.46E-03	1.29E-02	1.79E-03	4.28E-03	potential residence		0.01	2027	0.00
564750_418347C	564750	4183470	3.85E-03	3.64E-03	3.58E-03	0.00E+00	6.28E-03	1.08E-02	1.51E-03	3.60E-03	potential residence		0.01	2027	0.00
564410_418349C	564410	4183490	4.01E-04	3.06E-04	3.03E-04	0.00E+00	7.84E-04	1.36E-03	1.99E-04	4.47E-04	potential residence		0.00	2027	0.00
564430_418349C	564430	4183490	4.00E-04	3.23E-04	3.20E-04	0.00E+00	9.28E-04	1.61E-03	2.31E-04	5.30E-04	potential residence		0.00	2027	0.00
564450_418349C	564450	4183490	4.18E-04	3.51E-04	3.47E-04	0.00E+00	1.13E-03	1.96E-03	2.79E-04	6.49E-04	potential residence		0.00	2027	0.00
564470_418349C	564470	4183490	4.50E-04	3.88E-04	3.83E-04	0.00E+00	1.43E-03	2.47E-03	3.48E-04	8.18E-04	potential residence		0.00	2027	0.00
564490_418349C	564490	4183490	4.98E-04	4.36E-04	4.30E-04	0.00E+00	1.86E-03	3.21E-03	4.51E-04	1.07E-03	potential residence		0.00	2027	0.00
564530_418349C	564530	4183490	6.55E-04	5.77E-04	5.70E-04	0.00E+00	3.43E-03	5.92E-03	8.28E-04	1.97E-03	potential residence		0.01	2027	0.00
564550_418349C	564550	4183490	7.79E-04	6.81E-04	6.73E-04	0.00E+00	4.72E-03	8.14E-03	1.14E-03	2.71E-03	potential residence		0.01	2027	0.00
564610_418349C	564610	4183490	1.35E-03	1.20E-03	1.19E-03	0.00E+00	5.35E-05	1.06E-04	2.71E-05	2.67E-05	Omit		0.00	NA	0.00
564630_418349C	564630	4183490	1.61E-03	1.47E-03	1.45E-03	0.00E+00	4.33E-05	8.55E-05	2.19E-05	2.16E-05	Omit		0.00	NA	0.00
564650_418349C	564650	4183490	1.94E-03	1.80E-03	1.77E-03	0.00E+00	2.00E-02	3.45E-02	4.80E-03	1.15E-02	potential residence		0.03	2027	0.01
564670_418349C	564670	4183490	2.36E-03	2.22E-03	2.18E-03	0.00E+00	1.70E-02	2.93E-02	4.07E-03	9.75E-03	potential residence		0.03	2027	0.01
564690_418349C	564690	4183490	2.92E-03	2.76E-03	2.72E-03	0.00E+00	1.36E-02	2.35E-02	3.27E-03	7.83E-03	potential residence		0.02	2027	0.00
564710_418349C	564710	4183490	3.71E-03	3.52E-03	3.47E-03	0.00E+00	1.08E-02	1.86E-02	2.59E-03	6.20E-03	potential residence		0.02	2027	0.00
564730_418349C	564730	4183490	4.88E-03	4.63E-03	4.56E-03	0.00E+00	8.58E-03	1.48E-02	2.06E-03	4.93E-03	potential residence		0.01	2027	0.00
564750_418349C	564750	4183490	6.51E-03	6.19E-03	6.09E-03	0.00E+00	6.98E-03	1.20E-02	1.68E-03	4.00E-03	potential residence		0.01	2027	0.00
564370_418351C	564370	4183510	2.92E-04	2.37E-04	2.35E-04	0.00E+00	5.53E-04	9.58E-04	1.39E-04	3.16E-04	potential residence		0.00	2027	0.00
564410_418351C	564410	4183510	4.15E-04	3.10E-04	3.08E-04	0.00E+00	7.90E-04	1.37E-03	2.02E-04	4.50E-04	potential residence		0.00	2027	0.00
564430_418351C	564430	4183510	4.08E-04	3.26E-04	3.23E-04	0.00E+00	9.38E-04	1.63E-03	2.34E-04	5.36E-04	potential residence		0.00	2027	0.00
564450_418351C	564450	4183510	4.26E-04	3.54E-04	3.50E-04	0.00E+00	1.16E-03	2.00E-03	2.85E-04	6.61E-04	potential residence		0.00	2027	0.00
564470_418351C	564470	4183510	4.62E-04	3.93E-04	3.88E-04	0.00E+00	1.48E-03	2.55E-03	3.61E-04	8.47E-04	potential residence		0.00	2027	0.00
564490_418351C	564490	4183510	5.22E-04	4.47E-04	4.41E-04	0.00E+00	1.99E-03	3.44E-03	4.85E-04	1.14E-03	potential residence		0.00	2027	0.00
564510_418351C	564510	4183510	6.12E-04	5.19E-04	5.13E-04	0.00E+00	2.86E-03	4.94E-03	6.95E-04	1.64E-03	potential residence		0.00	2027	0.00
564550_418351C	564550	4183510	9.15E-04	7.43E-04	7.35E-04	0.00E+00	7.61E-05	1.50E-04	3.85E-05	3.80E-05	Omit		0.00	NA	0.00
564570_418351C	564570	4183510	9.88E-04	8.56E-04	8.46E-04	0.00E+00	5.26E-05	1.04E-04	2.66E-05	2.63E-05	Omit		0.00	NA	0.00
564590_418351C	564590	4183510	1.15E-03	1.03E-03	1.02E-03	0.00E+00	4.22E-05	8.34E-05	2.13E-05	2.11E-05	Omit		0.00	NA	0.00
564610_418351C	564610	4183510	1.40E-03	1.29E-03	1.27E-03	0.00E+00	3.59E-05	7.10E-05	1.82E-05	1.80E-05	Omit		0.00	NA	0.00
564630_418351C	564630	4183510	1.76E-03	1.64E-03	1.61E-03	0.00E+00	3.30E-05	6.52E-05	1.67E-05	1.65E-05	Omit		0.00	NA	0.00
564650_418351C	564650	4183510	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit		0.00	NA	0.00
564710_418351C	564710	4183510	5.82E-03	5.52E-03	5.44E-03	0.00E+00	1.19E-02	2.05E-02	2.86E-03	6.83E-03	potential residence		0.02	2027	0.00
564750_418351C	564750	4183510	1.91E-04	6.83E-05	7.05E-05	0.00E+00	7.27E-03	1.26E-02	1.76E-03	4.17E-03	Block1		0.01	2027	0.00
564770_418351C	564770	4183510	1.41E-04	5.07E-05	5.23E-05	0.00E+00	5.88E-03	1.02E-02	1.42E-03	3.38E-03	Block1		0.01	2027	0.00
564330_418353C	564330	4183530	2.34E-04	1.94E-04	1.92E-04	0.00E+00	4.08E-04	7.07E-04	1.02E-04	2.33E-04	potential residence		0.00	2027	0.00
564350_418353C	564350	4183530	2.50E-04	2.10E-04	2.07E-04	0.00E+00	4.64E-04	8.03E-04	1.15E-04	2.65E-04	potential residence		0.00	2027	0.00
564370_418353C	564370	4183530	2.73E-04	2.29E-04	2.26E-04	0.00E+00	5.35E-04	9.27E-04	1.33E-04	3.06E-04	potential residence		0.00	2027	0.00
564390_418353C	564390	4183530	3.11E-04	2.56E-04	2.53E-04	0.00E+00	6.32E-04	1.10E-03	1.58E-04	3.61E-04	potential residence		0.00	2027	0.00
564430_418353C	564430	4183530	4.18E-04	3.28E-04	3.25E-04	0.00E+00	9.25E-04	1.60E-03	2.32E-04	5.28E-04	potential residence		0.00	2027	0.00
564450_418353C	564450	4183530	4.39E-04	3.57E-04	3.53E-04	0.00E+00	1.14E-03	1.98E-03	2.83E-04	6.54E-04	potential residence		0.00	2027	0.00
564470_418353C	564470	4183530	4.96E-04	4.04E-04	4.00E-04	0.00E+00	1.48E-03	2.57E-03	3.66E-04	8.50E-04	potential residence		0.00	2027	0.00
564510_418353C	564510	4183530	7.19E-04	5.56E-04	5.52E-04	0.00E+00	2.99E-03	5.17E-03	7.34E-04	1.71E-03	potential residence		0.01	2027	0.00
564550_418353C	564550	4183530	8.15E-04	7.11E-04	7.02E-04	0.00E+00	4.07E-05	8.03E-05	2.05E-05	2.03E-05	Omit		0.00	NA	0.00
564570_418353C	564570	4183530	9.51E-04	8.55E-04	8.43E-04	0.00E+00	3.39E-05	6.69E-05	1.71E-05	1.69E-05	Omit		0.00	NA	0.00
564590_418353C	564590	4183530	1.15E-03	1.05E-03	1.04E-03	0.00E+00	3.10E-05	6.11E-05	1.56E-05	1.55E-05	Omit		0.00	NA	0.00
564610_418353C	564610	4183530	1.43E-03	1.32E-03	1.30E-03	0.00E+00	3.01E-05	5.95E-05	1.52E-05	1.50E-05	Omit		0.00	NA	0.00
564630_418353C	564630	4183530	1.84E-03	1.72E-03	1.70E-03	0.00E+00	3.09E-05	6.10E-05	1.56E-05	1.54E-05	Omit		0.00	NA	0.00
564650_418353C	564650	4183530	2.57E-03	2.42E-03	2.38E-03	0.00E+00	3.61E-05	7.13E-05	1.83E-05	1.80E-05	Omit		0.00	NA	0.00
564710_418353C	564710	4183530	1.83E-04	6.57E-05	6.78E-05	0.00E+00	1.13E-02	1.95E-02	2.72E-03	6.49E-03	Block1		0.02	2027	0.00
564730_418353C	564730	4183530	1.37E-04	4.91E-05	5.06E-05	0.00E+00	8.72E-03	1.50E-02	2.10E-03	5.01E-03	Block1		0.02	2027	0.00
564750_418353C	564750	4183530	1.09E-04	3.90E-05	4.02E-05	0.00E+00	6.90E-03	1.19E-02	1.66E-03	3.96E-03	Omit		0.00	NA	0.00
564770_418353C	564770	4183530	8.92E-05	3.20E-05	3.30E-05	0.00E+00	5.60E-03	9.66E-03	1.35E-03	3.21E-03	Omit		0.00	NA	0.00
564790_418353C	564790	4183530	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit		0.00	NA	0.00
564290_418355C	564290	4183550	1.99E-04	1.64E-04	1.62E-04	0.00E+00	3.14E-04	5.44E-04	7.91E-05	1.79E-04	potential residence		0.00	2027	0.00
564310_418355C	564310	4183550	2.08E-04	1.74E-04	1.72E-04	0.00E+00	3.49E-04	6.04E-04	8.71E-05	1.99E-04	potential residence		0.00	2027	0.00
564330_418355C	564330	4183550	2.20E-04	1.87E-04	1.85E-04	0.00E+00	3.92E-04	6.79E-04	9.73E-05	2.24E-04	potential residence		0.00	2027	0.00
564350_418355C	564350	4183550	2.35E-04	2.02E-04	2.00E-04	0.00E+00	4.46E-04	7.71E-04	1.10E-04	2.55E-04	potential residence		0.00	2027	0.00
564370_418355C	564370	4183550	2.57E-04	2.21E-04	2.18E-04	0.00E+00	5.14E-04	8.89E-04	1.27E-04	2.94E-04	potential residence		0.00	2027	0.00
564390_418355C	564390	4183550	2.88E-04	2.45E-04	2.42E-04	0.00E+00	6.03E-04	1.04E-03	1.49E-04	3.45E-04	potential residence		0.00	2027	0.00
564430_418355C	564430	4183550	4.36E-04	3.31E-04	3.29E-04	0.00E+00	8.99E-04	1.56E-03	2.28E-04	5.13E-04	potential residence		0.00	2027	0.00
564470_418355C	564470	4183550	5.80E-04	4.30E-04	4.27E-04	0.00E+00	1.45E-03	2.52E-03	3.66E-04	8.29E-04	potential residence		0.00	2027	0.00
564490_418355C	564490	4183550	5.61E-04	4.55E-04	4.50E-04	0.00E+00	1.92E-03	3.33E-03	4.73E-04	1.10E-03	potential residence		0.00	2027	0.00
564510_418355C	564510	4183550	5.94E-04	5.05E-04	4.99E-04	0.00E+00	2.77E-03	4.78E-03	6.72E-04	1.59E-03	potential residence		0.00	2027	0.00
564530_418355C	564530	4183550	6.61E-04	5.81E-04	5.73E-04	0.00E+00	4.41E-03	7.61E-03	1.06E-03	2.53E-03	potential residence		0.01	2027	0.00
564550_418355C	564550	4183550	7.58E-04	6.80E-04	6.71E-04	0.00E+00	2.74E-05	5.42E-05	1.39E-05	1.37E-05	Omit		0.00	NA	0.00
564570_418355C	564570	4183550	9.07E-04	8.26E-04	8.14E-04	0.00E+00	2.65E-05	5.23E-05	1.34E-05	1.32E-05	Omit		0.00	NA	0.00
564590_418355C	564590	4183550	1.11E-03	1.02E-03	1.01E-03	0.00E+00	2.78E-05	5.48E-05	1.40E-05	1.39E-05	Omit		0.00	NA	0.00
564610_418355C	564610	4183550	1.41E-03	1.30E-03	1.28E-03	0.00E+00	3.28E-05	6.48E-05	1.66E-05	1.64E-05	Omit		0.00	NA	0.00
564630_418355C	564630	4183550	1.91E-03	1.76E-03	1.73E-03	0.00E+00	4.76E-05	9.39E-05	2.40E-05	2.38E-05	Omit		0.00	NA	0.00
564690_418355C	564690	4183550	1.30E-04	4.66E-05	4.81E-05	0.00E+00	1.15E-02	1.98E-02	2.76E-03	6.59E-03	Omit		0.00	NA	0.00
564710_418355C	564710	4183550	1.05E-04	3.75E-05	3.87E-05	0.00E+00	9.04E-03	1.56E-02	2.17E-03	5.19E-03	Block1		0.02	2027	0.00
564730_418355C	564730	4183550	8.78E-05	3.15E-05	3.25E-05	0.00E+00	7.30E-03	1.26E-02	1.75E-03	4.19E-03	Omit		0.00	NA	0.00
564750_418355C	564750	4183550	7.44E-05	2.67E-05	2.75E-05	0.00E+00	5.96E-03	1.03E-02	1.43E-03	3.42E-03	Block1		0.01	2027	0.00
564770_418355C	564770	4183550	6.41E-05	2.30E-05	2.37E-05	0.00E+00	4.95E-03	8.53E-03	1.19E-03	2.84E-03	Block1		0.01	2027	0.00
564790_418355C	564790	4183550	5.68E-05	2.04E-05	2.10E-05	0.00E+00	4.21E-03	7.27E-03	1.01E-03	2.42E-03	Block1		0.01	2027	0.00
564250_418357C	564250	4183570	1.72E-04	1.40E-04	1.39E-04	0.00E+00	2.49E-04	4.32E-04	6.32E-05	1.42E-04	potential residence		0.00	2027	0.00
564270_418357C	564270	4183570	1.77E-04	1.48E-04	1.46E-04	0.00E+00	2.72E-04	4.72E-04	6.84E-05	1.55E-04	potential residence		0.00	2027	0.00
564290_418357C	564290	4183570	1.85E-04	1.57E-04	1.55E-04	0.00E+00	3.00E-04	5.21E-04	7.49E-05	1.72E-04	potential residence		0.00	2027	0.00
564310_418357C	564310	4183570	1.95E-04	1.68E-04	1.66E-04	0.00E+00	3.34E-04	5.79E-04	8.28E-05	1.91E-04	potential residence		0.00	2027	0.00
564330_418357C	564330	4183570	2.07E-04	1.80E-04	1.78E-04	0.00E+00	3.75E-04	6.49E-04	9.26E-05	2.15E-04	potential residence		0.00	2027	0.00
564350_418357C	564350	4183570	2.23E-04	1.96E-04	1.93E-04	0.00E+00	4.26E-04	7.38E-04	1.05E-04	2.44E-04	potential residence		0.00	2027	0.00
564370_418357C	564370	4183570	2.43E-04	2.13E-04	2.11E-04	0.00E+00	4.90E-04	8.48E-04	1.20E-04	2.81E-04	potential residence		0.00	2027	0.00
564390_418357C	564390	4183570	2.70E-04	2.35E-04	2.32E-04	0.00E+00	5.73E-04	9.91E-04	1.41E-04	3.28E-04	potential residence		0.00	2027	0.00
564430_418357C	564430	4183570	3.88E-04	3.10E-04	3.07E-04	0.00E+00	8.41E-04	1.46E-03	2.11E-04	4.81E-04	potential residence		0.00	2027	0.00
564450_418357C	564450	4183570	4.18E-04	3.41E-04	3.37E-04	0.00E+00	1.03E-03	1.79E-03	2.56E-04	5.92E-04	potential residence		0.00	2027	0.00
564470_418357C	564470	4183570	4.43E-04	3.74E-04	3.70E-04	0.00E+00	1.31E-03	2.26E-03	3.21E-04	7.49E-04	potential residence		0.00	2027	0.00
564490_418357C	564490	4183570	4.81E-04	4.18E-04	4.13E-04	0.00E+00	1.74E-03	3.00E-03	4.22E-04	9.95E-04	potential residence		0.00	2027	0.00
564510_418357C	564510	4183570	5.35E-04	4.75E-04	4.69E-04	0.00E+00	2.44E-03	4.20E-03	5.88E-04	1.40E-03	potential residence		0.00	2027	0.00
564530_418357C	564530	4183570	6.10E-04	5.50E-04	5.43E-04	0.00E+00	3.61E-03	6.23E-03	8.69E-04	2.07E-03	potential residence		0.01	2027	0.00
564550_418357C	564550	4183570	7.15E-04	6.51E-04	6.42E-04	0.00E+00	5.79E-03	9.98E-03	1.39E-03	3.32E-03	potential residence		0.01	2027	0.00
564570_418357C	564570	4183570	8.62E-04	7.86E-04	7.75E-04	0.00E+00	2.49E-05	4.92E-05	1.26E-05	1.24E-05	Omit		0.00	NA	0.00
564590_418357C	564590	4183570	1.10E-03	9.88E-04	9.75E-04	0.00E+00	4.14E-05	8.18E-05	2.09E-05	2.07E-05	Omit		0.00	NA	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	C_{DPM}/REL Max DPM	Max Year	HI
564690_4183570	564690	4183570	8.11E-05	2.91E-05	3.00E-05	0.00E+00	7.58E-03	1.31E-02	1.82E-03	4.35E-03	Omit	0.00	NA	0.00
564710_4183570	564710	4183570	6.84E-05	2.45E-05	2.53E-05	0.00E+00	6.31E-03	1.09E-02	1.52E-03	3.62E-03	Omit	0.00	NA	0.00
564730_4183570	564730	4183570	6.12E-05	2.19E-05	2.27E-05	0.00E+00	5.46E-03	9.41E-03	1.31E-03	3.13E-03	Block1	0.01	2027	0.00
564750_4183570	564750	4183570	5.40E-05	1.94E-05	2.00E-05	0.00E+00	4.66E-03	8.03E-03	1.12E-03	2.67E-03	Block1	0.01	2027	0.00
564770_4183570	564770	4183570	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.02E-03	6.94E-03	9.66E-04	2.31E-03	Block1	0.01	2027	0.00
564230_4183590	564230	4183590	1.52E-04	1.26E-04	1.25E-04	0.00E+00	2.18E-04	3.79E-04	5.51E-05	1.24E-04	potential residence	0.00	2027	0.00
564250_4183590	564250	4183590	1.57E-04	1.33E-04	1.32E-04	0.00E+00	2.37E-04	4.11E-04	5.94E-05	1.35E-04	potential residence	0.00	2027	0.00
564270_4183590	564270	4183590	1.65E-04	1.41E-04	1.40E-04	0.00E+00	2.60E-04	4.50E-04	6.47E-05	1.49E-04	potential residence	0.00	2027	0.00
564290_4183590	564290	4183590	1.73E-04	1.51E-04	1.49E-04	0.00E+00	2.87E-04	4.97E-04	7.10E-05	1.64E-04	potential residence	0.00	2027	0.00
564310_4183590	564310	4183590	1.84E-04	1.62E-04	1.59E-04	0.00E+00	3.19E-04	5.52E-04	7.87E-05	1.83E-04	potential residence	0.00	2027	0.00
564330_4183590	564330	4183590	1.97E-04	1.74E-04	1.72E-04	0.00E+00	3.58E-04	6.19E-04	8.79E-05	2.05E-04	potential residence	0.00	2027	0.00
564350_4183590	564350	4183590	2.12E-04	1.88E-04	1.86E-04	0.00E+00	4.06E-04	7.02E-04	9.94E-05	2.33E-04	potential residence	0.00	2027	0.00
564370_4183590	564370	4183590	2.31E-04	2.06E-04	2.03E-04	0.00E+00	4.66E-04	8.06E-04	1.14E-04	2.67E-04	potential residence	0.00	2027	0.00
564390_4183590	564390	4183590	2.54E-04	2.26E-04	2.23E-04	0.00E+00	5.43E-04	9.38E-04	1.32E-04	3.11E-04	potential residence	0.00	2027	0.00
564410_4183590	564410	4183590	2.82E-04	2.50E-04	2.47E-04	0.00E+00	6.40E-04	1.11E-03	1.56E-04	3.67E-04	potential residence	0.00	2027	0.00
564430_4183590	564430	4183590	3.15E-04	2.78E-04	2.75E-04	0.00E+00	7.71E-04	1.33E-03	1.88E-04	4.42E-04	potential residence	0.00	2027	0.00
564450_4183590	564450	4183590	3.50E-04	3.10E-04	3.06E-04	0.00E+00	9.47E-04	1.64E-03	2.30E-04	5.43E-04	potential residence	0.00	2027	0.00
564470_4183590	564470	4183590	3.87E-04	3.46E-04	3.42E-04	0.00E+00	1.19E-03	2.05E-03	2.87E-04	6.80E-04	potential residence	0.00	2027	0.00
564490_4183590	564490	4183590	4.34E-04	3.92E-04	3.86E-04	0.00E+00	1.54E-03	2.66E-03	3.72E-04	8.84E-04	potential residence	0.00	2027	0.00
564510_4183590	564510	4183590	4.91E-04	4.47E-04	4.41E-04	0.00E+00	2.05E-03	3.54E-03	4.95E-04	1.18E-03	potential residence	0.00	2027	0.00
564530_4183590	564530	4183590	5.68E-04	5.21E-04	5.13E-04	0.00E+00	2.82E-03	4.86E-03	6.78E-04	1.62E-03	potential residence	0.00	2027	0.00
564710_4183590	564710	4183590	4.83E-05	1.73E-05	1.79E-05	0.00E+00	4.28E-03	7.38E-03	1.03E-03	2.46E-03	Omit	0.00	NA	0.00
564730_4183590	564730	4183590	4.42E-05	1.58E-05	1.64E-05	0.00E+00	3.84E-03	6.63E-03	9.23E-04	2.21E-03	Block1	0.01	2027	0.00
564230_4183610	564230	4183610	1.40E-04	1.20E-04	1.19E-04	0.00E+00	2.08E-04	3.61E-04	5.19E-05	1.19E-04	potential residence	0.00	2027	0.00
564250_4183610	564250	4183610	1.46E-04	1.27E-04	1.26E-04	0.00E+00	2.26E-04	3.92E-04	5.62E-05	1.30E-04	potential residence	0.00	2027	0.00
564270_4183610	564270	4183610	1.54E-04	1.36E-04	1.34E-04	0.00E+00	2.48E-04	4.30E-04	6.13E-05	1.42E-04	potential residence	0.00	2027	0.00
564290_4183610	564290	4183610	1.64E-04	1.45E-04	1.43E-04	0.00E+00	2.74E-04	4.74E-04	6.74E-05	1.57E-04	potential residence	0.00	2027	0.00
564310_4183610	564310	4183610	1.74E-04	1.55E-04	1.53E-04	0.00E+00	3.05E-04	5.27E-04	7.48E-05	1.75E-04	potential residence	0.00	2027	0.00
564330_4183610	564330	4183610	1.87E-04	1.68E-04	1.65E-04	0.00E+00	3.42E-04	5.91E-04	8.36E-05	1.96E-04	potential residence	0.00	2027	0.00
564350_4183610	564350	4183610	2.02E-04	1.82E-04	1.79E-04	0.00E+00	3.87E-04	6.68E-04	9.44E-05	2.22E-04	potential residence	0.00	2027	0.00
564370_4183610	564370	4183610	2.19E-04	1.98E-04	1.95E-04	0.00E+00	4.42E-04	7.64E-04	1.08E-04	2.53E-04	potential residence	0.00	2027	0.00
564390_4183610	564390	4183610	2.39E-04	2.16E-04	2.13E-04	0.00E+00	5.10E-04	8.82E-04	1.24E-04	2.93E-04	potential residence	0.00	2027	0.00
564410_4183610	564410	4183610	2.62E-04	2.37E-04	2.34E-04	0.00E+00	5.98E-04	1.03E-03	1.45E-04	3.43E-04	potential residence	0.00	2027	0.00
564430_4183610	564430	4183610	2.90E-04	2.63E-04	2.59E-04	0.00E+00	7.15E-04	1.23E-03	1.73E-04	4.10E-04	potential residence	0.00	2027	0.00
564450_4183610	564450	4183610	3.22E-04	2.93E-04	2.89E-04	0.00E+00	8.71E-04	1.50E-03	2.11E-04	4.99E-04	potential residence	0.00	2027	0.00
564470_4183610	564470	4183610	3.58E-04	3.28E-04	3.23E-04	0.00E+00	1.07E-03	1.85E-03	2.59E-04	6.14E-04	potential residence	0.00	2027	0.00
564490_4183610	564490	4183610	4.04E-04	3.71E-04	3.66E-04	0.00E+00	1.35E-03	2.33E-03	3.26E-04	7.74E-04	potential residence	0.00	2027	0.00
564510_4183610	564510	4183610	4.59E-04	4.24E-04	4.18E-04	0.00E+00	1.71E-03	2.95E-03	4.12E-04	9.82E-04	potential residence	0.00	2027	0.00
564750_4183610	564750	4183610	7.25E-03	6.98E-03	6.87E-03	0.00E+00	2.48E-03	4.28E-03	5.96E-04	1.42E-03	potential residence	0.01	2022	0.00
564770_4183610	564770	4183610	7.07E-03	6.80E-03	6.70E-03	0.00E+00	2.29E-03	3.95E-03	5.50E-04	1.31E-03	potential residence	0.01	2022	0.00
564830_4183610	564830	4183610	5.49E-03	5.28E-03	5.20E-03	0.00E+00	1.81E-03	3.13E-03	4.36E-04	1.04E-03	potential residence	0.01	2022	0.00
564250_4183630	564250	4183630	1.38E-04	1.22E-04	1.21E-04	0.00E+00	2.17E-04	3.76E-04	5.35E-05	1.24E-04	potential residence	0.00	2027	0.00
564270_4183630	564270	4183630	1.46E-04	1.31E-04	1.29E-04	0.00E+00	2.38E-04	4.12E-04	5.84E-05	1.36E-04	potential residence	0.00	2027	0.00
564290_4183630	564290	4183630	1.55E-04	1.40E-04	1.38E-04	0.00E+00	2.63E-04	4.54E-04	6.43E-05	1.50E-04	potential residence	0.00	2027	0.00
564310_4183630	564310	4183630	1.66E-04	1.50E-04	1.48E-04	0.00E+00	2.92E-04	5.04E-04	7.13E-05	1.67E-04	potential residence	0.00	2027	0.00
564330_4183630	564330	4183630	1.78E-04	1.62E-04	1.59E-04	0.00E+00	3.27E-04	5.65E-04	7.97E-05	1.87E-04	potential residence	0.00	2027	0.00
564350_4183630	564350	4183630	1.92E-04	1.74E-04	1.72E-04	0.00E+00	3.67E-04	6.35E-04	8.94E-05	2.11E-04	potential residence	0.00	2027	0.00
564370_4183630	564370	4183630	2.08E-04	1.89E-04	1.87E-04	0.00E+00	4.19E-04	7.23E-04	1.02E-04	2.40E-04	potential residence	0.00	2027	0.00
564390_4183630	564390	4183630	2.27E-04	2.07E-04	2.04E-04	0.00E+00	4.82E-04	8.33E-04	1.17E-04	2.77E-04	potential residence	0.00	2027	0.00
564410_4183630	564410	4183630	2.40E-04	2.19E-04	2.16E-04	0.00E+00	5.60E-04	9.66E-04	1.36E-04	3.21E-04	potential residence	0.00	2027	0.00
564430_4183630	564430	4183630	2.64E-04	2.43E-04	2.39E-04	0.00E+00	6.63E-04	1.14E-03	1.60E-04	3.80E-04	potential residence	0.00	2027	0.00
564450_4183630	564450	4183630	3.03E-04	2.79E-04	2.75E-04	0.00E+00	7.95E-04	1.37E-03	1.92E-04	4.56E-04	potential residence	0.00	2027	0.00
564470_4183630	564470	4183630	3.38E-04	3.12E-04	3.08E-04	0.00E+00	9.60E-04	1.66E-03	2.32E-04	5.51E-04	potential residence	0.00	2027	0.00
564690_4183630	564690	4183630	2.52E-03	2.42E-03	2.38E-03	0.00E+00	2.17E-03	3.74E-03	5.21E-04	1.25E-03	potential residence	0.00	2027	0.00
564750_4183630	564750	4183630	3.89E-03	3.74E-03	3.68E-03	0.00E+00	1.82E-03	3.13E-03	4.37E-04	1.04E-03	potential residence	0.00	2022	0.00
564770_4183630	564770	4183630	3.97E-03	3.82E-03	3.76E-03	0.00E+00	1.71E-03	2.95E-03	4.11E-04	9.80E-04	potential residence	0.00	2022	0.00
564790_4183630	564790	4183630	3.93E-03	3.78E-03	3.72E-03	0.00E+00	1.61E-03	2.78E-03	3.88E-04	9.26E-04	potential residence	0.00	2022	0.00
564810_4183630	564810	4183630	3.78E-03	3.63E-03	3.58E-03	0.00E+00	1.52E-03	2.63E-03	3.66E-04	8.74E-04	potential residence	0.00	2022	0.00
564830_4183630	564830	4183630	3.55E-03	3.42E-03	3.36E-03	0.00E+00	1.44E-03	2.48E-03	3.45E-04	8.24E-04	potential residence	0.00	2022	0.00
564890_4183630	564890	4183630	2.69E-03	2.58E-03	2.54E-03	0.00E+00	1.18E-03	2.04E-03	2.84E-04	6.78E-04	potential residence	0.00	2022	0.00
564910_4183630	564910	4183630	2.44E-03	2.35E-03	2.31E-03	0.00E+00	1.11E-03	1.91E-03	2.66E-04	6.36E-04	potential residence	0.00	2022	0.00
564250_4183650	564250	4183650	1.31E-04	1.18E-04	1.16E-04	0.00E+00	2.09E-04	3.61E-04	5.11E-05	1.20E-04	potential residence	0.00	2027	0.00
564270_4183650	564270	4183650	1.39E-04	1.26E-04	1.24E-04	0.00E+00	2.29E-04	3.95E-04	5.59E-05	1.31E-04	potential residence	0.00	2027	0.00
564290_4183650	564290	4183650	1.48E-04	1.34E-04	1.33E-04	0.00E+00	2.52E-04	4.35E-04	6.14E-05	1.44E-04	potential residence	0.00	2027	0.00
564310_4183650	564310	4183650	1.58E-04	1.44E-04	1.42E-04	0.00E+00	2.79E-04	4.82E-04	6.80E-05	1.60E-04	potential residence	0.00	2027	0.00
564330_4183650	564330	4183650	1.70E-04	1.56E-04	1.53E-04	0.00E+00	3.13E-04	5.40E-04	7.60E-05	1.79E-04	potential residence	0.00	2027	0.00
564350_4183650	564350	4183650	1.83E-04	1.68E-04	1.66E-04	0.00E+00	3.51E-04	6.06E-04	8.52E-05	2.01E-04	potential residence	0.00	2027	0.00
564370_4183650	564370	4183650	1.92E-04	1.76E-04	1.74E-04	0.00E+00	3.97E-04	6.85E-04	9.62E-05	2.27E-04	potential residence	0.00	2027	0.00
564390_4183650	564390	4183650	2.09E-04	1.93E-04	1.90E-04	0.00E+00	4.56E-04	7.87E-04	1.10E-04	2.61E-04	potential residence	0.00	2027	0.00
564410_4183650	564410	4183650	2.29E-04	2.11E-04	2.08E-04	0.00E+00	5.27E-04	9.10E-04	1.28E-04	3.02E-04	potential residence	0.00	2027	0.00
564430_4183650	564430	4183650	2.51E-04	2.32E-04	2.29E-04	0.00E+00	6.16E-04	1.06E-03	1.49E-04	3.53E-04	potential residence	0.00	2027	0.00
564450_4183650	564450	4183650	2.77E-04	2.57E-04	2.54E-04	0.00E+00	7.22E-04	1.25E-03	1.74E-04	4.14E-04	potential residence	0.00	2027	0.00
564670_4183650	564670	4183650	1.55E-03	1.48E-03	1.46E-03	0.00E+00	1.62E-03	2.79E-03	3.89E-04	9.30E-04	potential residence	0.00	2027	0.00
564690_4183650	564690	4183650	1.80E-03	1.73E-03	1.70E-03	0.00E+00	1.57E-03	2.71E-03	3.77E-04	9.01E-04	potential residence	0.00	2027	0.00
564710_4183650	564710	4183650	2.14E-03	2.05E-03	2.02E-03	0.00E+00	1.51E-03	2.61E-03	3.63E-04	8.68E-04	potential residence	0.00	2027	0.00
564730_4183650	564730	4183650	2.32E-03	2.23E-03	2.20E-03	0.00E+00	1.44E-03	2.48E-03	3.46E-04	8.26E-04	potential residence	0.00	2027	0.00
564750_4183650	564750	4183650	2.45E-03	2.35E-03	2.32E-03	0.00E+00	1.37E-03	2.36E-03	3.28E-04	7.84E-04	potential residence	0.00	2022	0.00
564770_4183650	564770	4183650	2.53E-03	2.43E-03	2.39E-03	0.00E+00	1.30E-03	2.25E-03	3.14E-04	7.49E-04	potential residence	0.00	2022	0.00
564790_4183650	564790	4183650	2.54E-03	2.44E-03	2.40E-03	0.00E+00	1.25E-03	2.15E-03	3.00E-04	7.16E-04	potential residence	0.00	2022	0.00
564810_4183650	564810	4183650	2.49E-03	2.39E-03	2.35E-03	0.00E+00	1.19E-03	2.05E-03	2.86E-04	6.84E-04	potential residence	0.00	2022	0.00
564830_4183650	564830	4183650	2.40E-03	2.30E-03	2.27E-03	0.00E+00	1.14E-03	1.96E-03	2.73E-04	6.52E-04	potential residence	0.00	2022	0.00
564850_4183650	564850	4183650	2.26E-03	2.17E-03	2.14E-03	0.00E+00	1.08E-03	1.86E-03	2.60E-04	6.20E-04	potential residence	0.00	2022	0.00
564870_4183650	564870	4183650	2.12E-03	2.04E-03	2.01E-03	0.00E+00	1.03E-03	1.77E-03	2.47E-04	5.90E-04	potential residence	0.00	2022	0.00
564890_4183650	564890	4183650	1.97E-03	1.89E-03	1.86E-03	0.00E+00	9.74E-04	1.68E-03	2.34E-04	5.59E-04	potential residence	0.00	2022	0.00
564910_4183650	564910	4183650	1.83E-03	1.76E-03	1.73E-03	0.00E+00	9.12E-04	1.57E-03	2.19E-04	5.24E-04	potential residence	0.00	2022	0.00
564270_4183670	564270	4183670	1.30E-04	1.19E-04	1.17E-04	0.00E+00	2.20E-04	3.80E-04	5.35E-05	1.26E-04	potential residence	0.00	2027	0.00
564290_4183670	564290	4183670	1.38E-04	1.27E-04	1.25E-04	0.00E+00	2.42E-04	4.18E-04	5.88E-05	1.39E-04	potential residence	0.00	2027	0.00
564310_4183670	564310	4183670	1.52E-04	1.39E-04	1.37E-04	0.00E+00	2.68E-04	4.63E-04	6.51E-05	1.54E-04	potential residence	0.00	2027	0.00
564330_4183670	564330	4183670	1.59E-04	1.46E-04	1.44E-04	0.00E+00	2.99E-04	5.16E-04	7.25E-05	1.71E-04	potential residence	0.00	2027	0.00
564350_4183670	564350	4183670	1.71E-04	1.57E-04	1.55E-04	0.00E+00	3.35E-04	5.79E-04	8.12E-05	1.92E-04	potential residence	0.00	2027	0.00
564370_4183670	564370	4183670	1.84E-04	1.70E-04	1.67E-04	0.00E+00	3.78E-04	6.52E-04	9.15E-05	2.17E-04	potential residence	0.00	2027	0.00
564390_4183670	564390	4183670	2.00E-04	1.85E-04	1.83E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence	0.00	2027	0.00
564410_4183670	564410	4183670	2.18E-04	2.02E-04	1.99E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	potential residence	0.00	2027	0.00
564430_4183670	564430	4183670	2.39E-04	2.22E-04	2.19E-04	0.00E+00	5.65E-04	9.75E-04	1.36E-04	3.24E-04	potential residence	0.00	2027	0.00
564450_4183670	564450	4183670	2.63E-04	2.45E-04	2.42E-04	0.00E+00	6.47E-04	1.12E-03	1.56E-04	3.71E-04	potential residence	0.00	2027	0.00
564470_4183670	564470	4183670	2.93E-04	2.74E-04	2.70E-04	0.00E+00	7.39E-04	1.27E-03	1.78E-04	4.24E-04	potential residence	0.00	2027	0.00
564650_4183670	564650	4183670	1.06E-03	1.01E-03	9.93E-04	0.00E+00	1.19E-03	2.05E-03	2.85E-04	6.81E-04	potential residence	0.00	2027	0.00
564670_4183670	564670	4183670	1.21E-03	1.15E-03	1.14E-03	0.00E+00	1.21E-03	2.09E-03	2.92E-04	6.97E-04	potential residence	0.00	2027	0.00
564730_4183670	564730	4183670	1.63E-03	1.56E-03	1.54E-03	0.00E+00	1.11E-03	1.92E-03	2.67E-04	6.38E-04	potential residence	0.00	2027	0.00
564750_4183670	564750	4183670	1.69E-03	1.62E-03	1.60E-03	0.00E+00	1.06E-03	1.83E-03	2.55E-04	6.10E-04	potential residence	0.00	2027	0.00
564770_4183670	564770	4183670	1.75E-03	1.68E-03	1.65E-03	0.00E+00	1.02E-03	1.77E-03	2.46E-04	5.88E-04	potential residence	0.00	2027	0.00
564790_4183670	564790	4183670	1.76E-03	1.69E-03	1.66E-03	0.00E+00	9.83E-04	1.70E-03	2.36E-04	5.64E-04	potential residence	0.00	2022	0.00
564810_4183670	564810	4183670	1.75E-03	1.68E-03	1.65E-03	0.00E+00	9.46E-04	1.63E-03	2.27E-04	5.43E-04	potential residence	0.00	2022	0.00
564830_4183670	564830	4183670	1.70E-03	1.63E-03	1.61E-03	0.00E+00	9.08E-04	1.57E-03	2.18E-04	5.21E-04	potential residence	0.00	2022	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	C_{DPM}/REL Max DPM	Max Year	HI
564850_4183670	564850	4183670	1.68E-03	1.61E-03	1.58E-03	0.00E+00	8.77E-04	1.51E-03	2.11E-04	5.04E-04	potential residence	0.00	2022	0.00
564870_4183670	564870	4183670	1.57E-03	1.51E-03	1.49E-03	0.00E+00	8.30E-04	1.43E-03	2.00E-04	4.76E-04	potential residence	0.00	2022	0.00
564890_4183670	564890	4183670	1.48E-03	1.42E-03	1.40E-03	0.00E+00	7.93E-04	1.37E-03	1.91E-04	4.55E-04	potential residence	0.00	2022	0.00
564910_4183670	564910	4183670	1.40E-03	1.34E-03	1.32E-03	0.00E+00	7.62E-04	1.31E-03	1.83E-04	4.37E-04	potential residence	0.00	2022	0.00
564930_4183670	564930	4183670	1.31E-03	1.25E-03	1.23E-03	0.00E+00	7.33E-04	1.26E-03	1.76E-04	4.21E-04	potential residence	0.00	2022	0.00
564270_4183690	564270	4183690	1.24E-04	1.14E-04	1.13E-04	0.00E+00	2.12E-04	3.66E-04	5.14E-05	1.21E-04	potential residence	0.00	2027	0.00
564290_4183690	564290	4183690	1.32E-04	1.22E-04	1.20E-04	0.00E+00	2.33E-04	4.02E-04	5.65E-05	1.33E-04	potential residence	0.00	2027	0.00
564310_4183690	564310	4183690	1.42E-04	1.31E-04	1.29E-04	0.00E+00	2.57E-04	4.44E-04	6.24E-05	1.47E-04	potential residence	0.00	2027	0.00
564330_4183690	564330	4183690	1.52E-04	1.40E-04	1.38E-04	0.00E+00	2.86E-04	4.93E-04	6.92E-05	1.64E-04	potential residence	0.00	2027	0.00
564350_4183690	564350	4183690	1.64E-04	1.52E-04	1.49E-04	0.00E+00	3.19E-04	5.51E-04	7.73E-05	1.83E-04	potential residence	0.00	2027	0.00
564370_4183690	564370	4183690	1.77E-04	1.64E-04	1.62E-04	0.00E+00	3.58E-04	6.18E-04	8.66E-05	2.06E-04	potential residence	0.00	2027	0.00
564390_4183690	564390	4183690	1.91E-04	1.78E-04	1.75E-04	0.00E+00	4.03E-04	6.96E-04	9.74E-05	2.31E-04	potential residence	0.00	2027	0.00
564410_4183690	564410	4183690	2.09E-04	1.94E-04	1.92E-04	0.00E+00	4.55E-04	7.85E-04	1.10E-04	2.61E-04	potential residence	0.00	2027	0.00
564430_4183690	564430	4183690	2.28E-04	2.13E-04	2.10E-04	0.00E+00	4.96E-04	8.57E-04	1.20E-04	2.85E-04	potential residence	0.00	2027	0.00
564450_4183690	564450	4183690	2.51E-04	2.35E-04	2.31E-04	0.00E+00	5.56E-04	9.59E-04	1.34E-04	3.19E-04	potential residence	0.00	2027	0.00
564470_4183690	564470	4183690	2.79E-04	2.62E-04	2.58E-04	0.00E+00	6.38E-04	1.10E-03	1.54E-04	3.66E-04	potential residence	0.00	2027	0.00
564570_4183690	564570	4183690	5.22E-04	4.95E-04	4.88E-04	0.00E+00	8.52E-04	1.47E-03	2.05E-04	4.89E-04	potential residence	0.00	2027	0.00
564590_4183690	564590	4183690	5.98E-04	5.68E-04	5.60E-04	0.00E+00	8.73E-04	1.51E-03	2.10E-04	5.01E-04	potential residence	0.00	2027	0.00
564650_4183690	564650	4183690	8.65E-04	8.26E-04	8.13E-04	0.00E+00	9.13E-04	1.57E-03	2.20E-04	5.24E-04	potential residence	0.00	2027	0.00
564670_4183690	564670	4183690	9.49E-04	9.07E-04	8.93E-04	0.00E+00	9.13E-04	1.57E-03	2.19E-04	5.24E-04	potential residence	0.00	2027	0.00
564730_4183690	564730	4183690	1.21E-03	1.16E-03	1.14E-03	0.00E+00	8.86E-04	1.53E-03	2.13E-04	5.09E-04	potential residence	0.00	2027	0.00
564750_4183690	564750	4183690	1.24E-03	1.19E-03	1.17E-03	0.00E+00	8.51E-04	1.47E-03	2.05E-04	4.88E-04	potential residence	0.00	2027	0.00
564770_4183690	564770	4183690	1.27E-03	1.22E-03	1.20E-03	0.00E+00	8.22E-04	1.42E-03	1.98E-04	4.72E-04	potential residence	0.00	2027	0.00
564790_4183690	564790	4183690	1.28E-03	1.23E-03	1.21E-03	0.00E+00	7.91E-04	1.36E-03	1.90E-04	4.54E-04	potential residence	0.00	2027	0.00
564810_4183690	564810	4183690	1.27E-03	1.22E-03	1.20E-03	0.00E+00	7.61E-04	1.31E-03	1.83E-04	4.37E-04	potential residence	0.00	2027	0.00
564830_4183690	564830	4183690	1.25E-03	1.20E-03	1.18E-03	0.00E+00	7.33E-04	1.26E-03	1.76E-04	4.20E-04	potential residence	0.00	2027	0.00
564850_4183690	564850	4183690	1.23E-03	1.18E-03	1.16E-03	0.00E+00	7.10E-04	1.22E-03	1.71E-04	4.08E-04	potential residence	0.00	2022	0.00
564870_4183690	564870	4183690	1.20E-03	1.15E-03	1.13E-03	0.00E+00	6.92E-04	1.19E-03	1.66E-04	3.97E-04	potential residence	0.00	2022	0.00
564890_4183690	564890	4183690	1.15E-03	1.10E-03	1.08E-03	0.00E+00	6.64E-04	1.15E-03	1.60E-04	3.81E-04	potential residence	0.00	2022	0.00
564910_4183690	564910	4183690	1.09E-03	1.05E-03	1.03E-03	0.00E+00	6.39E-04	1.10E-03	1.54E-04	3.66E-04	potential residence	0.00	2027	0.00
564930_4183690	564930	4183690	1.03E-03	9.87E-04	9.71E-04	0.00E+00	6.15E-04	1.06E-03	1.48E-04	3.53E-04	potential residence	0.00	2027	0.00
564290_4183710	564290	4183710	1.28E-04	1.18E-04	1.16E-04	0.00E+00	2.24E-04	3.87E-04	5.44E-05	1.29E-04	potential residence	0.00	2027	0.00
564310_4183710	564310	4183710	1.37E-04	1.27E-04	1.25E-04	0.00E+00	2.47E-04	4.27E-04	5.99E-05	1.42E-04	potential residence	0.00	2027	0.00
564330_4183710	564330	4183710	1.46E-04	1.36E-04	1.34E-04	0.00E+00	2.74E-04	4.72E-04	6.62E-05	1.57E-04	potential residence	0.00	2027	0.00
564350_4183710	564350	4183710	1.58E-04	1.47E-04	1.45E-04	0.00E+00	3.04E-04	5.24E-04	7.35E-05	1.74E-04	potential residence	0.00	2027	0.00
564370_4183710	564370	4183710	1.70E-04	1.58E-04	1.56E-04	0.00E+00	3.38E-04	5.83E-04	8.16E-05	1.94E-04	potential residence	0.00	2027	0.00
564390_4183710	564390	4183710	1.84E-04	1.71E-04	1.69E-04	0.00E+00	3.65E-04	6.30E-04	8.81E-05	2.09E-04	potential residence	0.00	2027	0.00
564410_4183710	564410	4183710	1.99E-04	1.86E-04	1.83E-04	0.00E+00	4.03E-04	6.95E-04	9.72E-05	2.31E-04	potential residence	0.00	2027	0.00
564430_4183710	564430	4183710	2.18E-04	2.04E-04	2.01E-04	0.00E+00	4.47E-04	7.71E-04	1.08E-04	2.56E-04	potential residence	0.00	2027	0.00
564450_4183710	564450	4183710	2.40E-04	2.26E-04	2.22E-04	0.00E+00	4.91E-04	8.47E-04	1.18E-04	2.82E-04	potential residence	0.00	2027	0.00
564470_4183710	564470	4183710	2.66E-04	2.50E-04	2.47E-04	0.00E+00	5.32E-04	9.18E-04	1.28E-04	3.05E-04	potential residence	0.00	2027	0.00
564490_4183710	564490	4183710	2.97E-04	2.80E-04	2.76E-04	0.00E+00	5.70E-04	9.84E-04	1.37E-04	3.27E-04	potential residence	0.00	2027	0.00
564530_4183710	564530	4183710	3.74E-04	3.55E-04	3.49E-04	0.00E+00	6.35E-04	1.10E-03	1.53E-04	3.65E-04	potential residence	0.00	2027	0.00
564550_4183710	564550	4183710	4.20E-04	3.98E-04	3.92E-04	0.00E+00	6.57E-04	1.13E-03	1.58E-04	3.77E-04	potential residence	0.00	2027	0.00
564570_4183710	564570	4183710	4.73E-04	4.50E-04	4.43E-04	0.00E+00	6.76E-04	1.17E-03	1.63E-04	3.88E-04	potential residence	0.00	2027	0.00
564590_4183710	564590	4183710	5.33E-04	5.07E-04	4.99E-04	0.00E+00	6.92E-04	1.19E-03	1.66E-04	3.97E-04	potential residence	0.00	2027	0.00
564650_4183710	564650	4183710	7.13E-04	6.81E-04	6.71E-04	0.00E+00	7.25E-04	1.25E-03	1.74E-04	4.16E-04	potential residence	0.00	2027	0.00
564670_4183710	564670	4183710	7.68E-04	7.34E-04	7.23E-04	0.00E+00	7.50E-04	1.29E-03	1.80E-04	4.31E-04	potential residence	0.00	2027	0.00
564690_4183710	564690	4183710	8.21E-04	7.85E-04	7.73E-04	0.00E+00	7.49E-04	1.29E-03	1.80E-04	4.30E-04	potential residence	0.00	2027	0.00
564710_4183710	564710	4183710	8.58E-04	8.21E-04	8.08E-04	0.00E+00	7.36E-04	1.27E-03	1.77E-04	4.23E-04	potential residence	0.00	2027	0.00
564730_4183710	564730	4183710	9.30E-04	8.90E-04	8.77E-04	0.00E+00	7.20E-04	1.24E-03	1.73E-04	4.13E-04	potential residence	0.00	2027	0.00
564750_4183710	564750	4183710	9.52E-04	9.12E-04	8.98E-04	0.00E+00	6.98E-04	1.20E-03	1.68E-04	4.01E-04	potential residence	0.00	2027	0.00
564770_4183710	564770	4183710	9.63E-04	9.23E-04	9.09E-04	0.00E+00	6.73E-04	1.16E-03	1.62E-04	3.86E-04	potential residence	0.00	2027	0.00
564790_4183710	564790	4183710	9.73E-04	9.33E-04	9.19E-04	0.00E+00	6.51E-04	1.12E-03	1.57E-04	3.74E-04	potential residence	0.00	2027	0.00
564810_4183710	564810	4183710	9.72E-04	9.31E-04	9.17E-04	0.00E+00	6.27E-04	1.08E-03	1.51E-04	3.60E-04	potential residence	0.00	2027	0.00
564830_4183710	564830	4183710	9.59E-04	9.19E-04	9.05E-04	0.00E+00	6.04E-04	1.04E-03	1.45E-04	3.47E-04	potential residence	0.00	2027	0.00
564850_4183710	564850	4183710	9.33E-04	8.94E-04	8.81E-04	0.00E+00	5.81E-04	1.00E-03	1.40E-04	3.34E-04	potential residence	0.00	2027	0.00
564870_4183710	564870	4183710	9.10E-04	8.72E-04	8.59E-04	0.00E+00	5.64E-04	9.73E-04	1.36E-04	3.24E-04	potential residence	0.00	2027	0.00
564890_4183710	564890	4183710	9.07E-04	8.70E-04	8.56E-04	0.00E+00	5.58E-04	9.63E-04	1.34E-04	3.20E-04	potential residence	0.00	2027	0.00
564910_4183710	564910	4183710	8.68E-04	8.32E-04	8.19E-04	0.00E+00	5.39E-04	9.29E-04	1.30E-04	3.09E-04	potential residence	0.00	2027	0.00
564930_4183710	564930	4183710	8.29E-04	7.95E-04	7.82E-04	0.00E+00	5.20E-04	8.98E-04	1.25E-04	2.99E-04	potential residence	0.00	2027	0.00
564950_4183710	564950	4183710	7.95E-04	7.61E-04	7.50E-04	0.00E+00	5.01E-04	8.63E-04	1.20E-04	2.87E-04	potential residence	0.00	2027	0.00
564310_4183730	564310	4183730	1.32E-04	1.23E-04	1.21E-04	0.00E+00	2.37E-04	4.09E-04	5.74E-05	1.36E-04	potential residence	0.00	2027	0.00
564330_4183730	564330	4183730	1.41E-04	1.31E-04	1.30E-04	0.00E+00	2.54E-04	4.38E-04	6.13E-05	1.45E-04	potential residence	0.00	2027	0.00
564350_4183730	564350	4183730	1.52E-04	1.42E-04	1.40E-04	0.00E+00	2.80E-04	4.82E-04	6.75E-05	1.60E-04	potential residence	0.00	2027	0.00
564370_4183730	564370	4183730	1.64E-04	1.54E-04	1.51E-04	0.00E+00	3.09E-04	5.33E-04	7.46E-05	1.77E-04	potential residence	0.00	2027	0.00
564390_4183730	564390	4183730	1.77E-04	1.66E-04	1.63E-04	0.00E+00	3.38E-04	5.83E-04	8.15E-05	1.94E-04	potential residence	0.00	2027	0.00
564410_4183730	564410	4183730	1.92E-04	1.80E-04	1.77E-04	0.00E+00	3.68E-04	6.36E-04	8.88E-05	2.11E-04	potential residence	0.00	2027	0.00
564430_4183730	564430	4183730	2.10E-04	1.98E-04	1.95E-04	0.00E+00	4.02E-04	6.93E-04	9.69E-05	2.31E-04	potential residence	0.00	2027	0.00
564450_4183730	564450	4183730	2.31E-04	2.18E-04	2.15E-04	0.00E+00	4.33E-04	7.48E-04	1.04E-04	2.49E-04	potential residence	0.00	2027	0.00
564470_4183730	564470	4183730	2.56E-04	2.41E-04	2.38E-04	0.00E+00	4.61E-04	7.95E-04	1.11E-04	2.65E-04	potential residence	0.00	2027	0.00
564490_4183730	564490	4183730	2.84E-04	2.68E-04	2.64E-04	0.00E+00	4.86E-04	8.38E-04	1.17E-04	2.79E-04	potential residence	0.00	2027	0.00
564510_4183730	564510	4183730	3.15E-04	2.98E-04	2.94E-04	0.00E+00	5.08E-04	8.76E-04	1.22E-04	2.91E-04	potential residence	0.00	2027	0.00
564530_4183730	564530	4183730	3.50E-04	3.32E-04	3.27E-04	0.00E+00	5.28E-04	9.10E-04	1.27E-04	3.03E-04	potential residence	0.00	2027	0.00
564550_4183730	564550	4183730	3.88E-04	3.68E-04	3.63E-04	0.00E+00	5.43E-04	9.36E-04	1.31E-04	3.11E-04	potential residence	0.00	2027	0.00
564570_4183730	564570	4183730	4.30E-04	4.09E-04	4.03E-04	0.00E+00	5.56E-04	9.58E-04	1.34E-04	3.19E-04	potential residence	0.00	2027	0.00
564590_4183730	564590	4183730	4.74E-04	4.52E-04	4.45E-04	0.00E+00	5.66E-04	9.76E-04	1.36E-04	3.25E-04	potential residence	0.00	2027	0.00
564610_4183730	564610	4183730	5.19E-04	4.95E-04	4.87E-04	0.00E+00	5.76E-04	9.94E-04	1.39E-04	3.31E-04	potential residence	0.00	2027	0.00
564630_4183730	564630	4183730	5.60E-04	5.35E-04	5.27E-04	0.00E+00	5.86E-04	1.01E-03	1.41E-04	3.36E-04	potential residence	0.00	2027	0.00
564650_4183730	564650	4183730	5.96E-04	5.69E-04	5.61E-04	0.00E+00	5.92E-04	1.02E-03	1.42E-04	3.40E-04	potential residence	0.00	2027	0.00
564670_4183730	564670	4183730	6.30E-04	6.02E-04	5.93E-04	0.00E+00	5.96E-04	1.03E-03	1.43E-04	3.42E-04	potential residence	0.00	2027	0.00
564690_4183730	564690	4183730	6.62E-04	6.33E-04	6.23E-04	0.00E+00	6.12E-04	1.05E-03	1.47E-04	3.51E-04	potential residence	0.00	2027	0.00
564710_4183730	564710	4183730	6.86E-04	6.56E-04	6.46E-04	0.00E+00	6.05E-04	1.04E-03	1.46E-04	3.47E-04	potential residence	0.00	2027	0.00
564730_4183730	564730	4183730	7.05E-04	6.75E-04	6.65E-04	0.00E+00	5.95E-04	1.03E-03	1.43E-04	3.41E-04	potential residence	0.00	2027	0.00
564750_4183730	564750	4183730	7.52E-04	7.20E-04	7.09E-04	0.00E+00	5.82E-04	1.00E-03	1.40E-04	3.34E-04	potential residence	0.00	2027	0.00
564770_4183730	564770	4183730	7.62E-04	7.30E-04	7.19E-04	0.00E+00	5.65E-04	9.75E-04	1.36E-04	3.24E-04	potential residence	0.00	2027	0.00
564790_4183730	564790	4183730	7.64E-04	7.32E-04	7.21E-04	0.00E+00	5.46E-04	9.41E-04	1.31E-04	3.13E-04	potential residence	0.00	2027	0.00
564810_4183730	564810	4183730	7.67E-04	7.35E-04	7.23E-04	0.00E+00	5.29E-04	9.12E-04	1.27E-04	3.03E-04	potential residence	0.00	2027	0.00
564830_4183730	564830	4183730	7.63E-04	7.31E-04	7.20E-04	0.00E+00	5.11E-04	8.82E-04	1.23E-04	2.93E-04	potential residence	0.00	2027	0.00
564850_4183730	564850	4183730	7.52E-04	7.20E-04	7.09E-04	0.00E+00	4.94E-04	8.52E-04	1.19E-04	2.84E-04	potential residence	0.00	2027	0.00
564870_4183730	564870	4183730	7.26E-04	6.96E-04	6.85E-04	0.00E+00	4.74E-04	8.18E-04	1.14E-04	2.72E-04	potential residence	0.00	2027	0.00
564890_4183730	564890	4183730	7.42E-04	7.11E-04	7.00E-04	0.00E+00	4.75E-04	8.19E-04	1.14E-04	2.73E-04	potential residence	0.00	2027	0.00
564910_4183730	564910	4183730	7.11E-04	6.81E-04	6.71E-04	0.00E+00	4.59E-04	7.93E-04	1.11E-04	2.64E-04	potential residence	0.00	2027	0.00
564930_4183730	564930	4183730	6.84E-04	6.55E-04	6.45E-04	0.00E+00	4.45E-04	7.67E-04	1.07E-04	2.55E-04	potential residence	0.00	2027	0.00
564950_4183730	564950	4183730	6.57E-04	6.29E-04	6.20E-04	0.00E+00	4.30E-04	7.41E-04	1.03E-04	2.47E-04	potential residence	0.00	2027	0.00
564330_4183750	564330	4183750	1.36E-04	1.27E-04	1.25E-04	0.00E+00	2.40E-04	4.14E-04	5.80E-05	1.38E-04	potential residence	0.00	2027	0.00
564350_4183750	564350	4183750	1.47E-04	1.37E-04	1.35E-04	0.00E+00	2.63E-04	4.54E-04	6.36E-05	1.51E-04	potential residence	0.00	2027	0.00
564370_4183750	564370	4183750	1.58E-04	1.48E-04	1.46E-04	0.00E+00	2.87E-04	4.95E-04	6.92E-05	1.65E-04	potential residence	0.00	2027	0.00
564390_4183750	564390	4183750	1.72E-04	1.61E-04	1.59E-04	0.00E+00	3.12E-04	5.38E-04	7.53E-05	1.79E-04	potential residence	0.00	2027	0.00
564410_4183750	564410	4183750	1.86E-04	1.75E-04	1.73E-04	0.00E+00	3.36E-04	5.80E-04	8.11E-05	1.93E-04	potential residence	0.00	2027	0.00
564430_4183750	564430	4183750	2.03E-04	1.91E-04	1.89E-04	0.00E+00	3.60E-04	6.21E-04	8.67E-05	2.07E-04	potential residence	0.00	2027	0.00
564450_4183750	564450	4183750	2.23E-04	2.10E-04	2.07E-04	0.00E+00	3.82E-04	6.58E-04	9.20E-05	2.19E-04	potential residence	0.00	2027	0.00
564470_4183750	564470	4183750	2.44E-04	2.31E-04	2.27E-04	0.00E+00	3.99E-04	6.88E-04	9.61E-05	2.29E-04	potential residence	0.00	2027	0.00
564490_4183750	564490	4183750	2.69E-04	2.54E-04	2.51E-04	0.00E+00	4.16E-04	7.17E-04	1.00E-04	2.39E-04	potential residence	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type	C_{DPM}/REL		
			2022	2023	2024	2025	2026	2027	2028	2029		Max DPM	Max Year	HI
564510_4183750	564510	4183750	2.97E-04	2.82E-04	2.78E-04	0.00E+00	4.33E-04	7.47E-04	1.04E-04	2.49E-04	potential residence	0.00	2027	0.00
564530_4183750	564530	4183750	3.24E-04	3.08E-04	3.03E-04	0.00E+00	4.44E-04	7.66E-04	1.07E-04	2.55E-04	potential residence	0.00	2027	0.00
564550_4183750	564550	4183750	3.57E-04	3.39E-04	3.34E-04	0.00E+00	4.58E-04	7.90E-04	1.10E-04	2.63E-04	potential residence	0.00	2027	0.00
564570_4183750	564570	4183750	3.88E-04	3.70E-04	3.64E-04	0.00E+00	4.66E-04	8.03E-04	1.12E-04	2.67E-04	potential residence	0.00	2027	0.00
564590_4183750	564590	4183750	4.21E-04	4.01E-04	3.95E-04	0.00E+00	4.73E-04	8.16E-04	1.14E-04	2.71E-04	potential residence	0.00	2027	0.00
564610_4183750	564610	4183750	4.53E-04	4.32E-04	4.25E-04	0.00E+00	4.82E-04	8.31E-04	1.16E-04	2.76E-04	potential residence	0.00	2027	0.00
564630_4183750	564630	4183750	4.78E-04	4.56E-04	4.49E-04	0.00E+00	4.85E-04	8.37E-04	1.17E-04	2.78E-04	potential residence	0.00	2027	0.00
564650_4183750	564650	4183750	5.01E-04	4.78E-04	4.71E-04	0.00E+00	4.90E-04	8.45E-04	1.18E-04	2.81E-04	potential residence	0.00	2027	0.00
564670_4183750	564670	4183750	5.20E-04	4.97E-04	4.89E-04	0.00E+00	4.91E-04	8.47E-04	1.18E-04	2.82E-04	potential residence	0.00	2027	0.00
564690_4183750	564690	4183750	5.43E-04	5.19E-04	5.11E-04	0.00E+00	4.95E-04	8.54E-04	1.19E-04	2.84E-04	potential residence	0.00	2027	0.00
564710_4183750	564710	4183750	5.60E-04	5.35E-04	5.27E-04	0.00E+00	4.94E-04	8.52E-04	1.19E-04	2.83E-04	potential residence	0.00	2027	0.00
564730_4183750	564730	4183750	5.74E-04	5.49E-04	5.40E-04	0.00E+00	5.00E-04	8.62E-04	1.20E-04	2.87E-04	potential residence	0.00	2027	0.00
564750_4183750	564750	4183750	6.10E-04	5.84E-04	5.75E-04	0.00E+00	4.92E-04	8.48E-04	1.18E-04	2.82E-04	potential residence	0.00	2027	0.00
564770_4183750	564770	4183750	6.17E-04	5.91E-04	5.82E-04	0.00E+00	4.81E-04	8.29E-04	1.16E-04	2.76E-04	potential residence	0.00	2027	0.00
564790_4183750	564790	4183750	6.19E-04	5.93E-04	5.84E-04	0.00E+00	4.67E-04	8.05E-04	1.12E-04	2.68E-04	potential residence	0.00	2027	0.00
564810_4183750	564810	4183750	6.23E-04	5.96E-04	5.87E-04	0.00E+00	4.53E-04	7.82E-04	1.09E-04	2.60E-04	potential residence	0.00	2027	0.00
564830_4183750	564830	4183750	6.23E-04	5.97E-04	5.88E-04	0.00E+00	4.40E-04	7.59E-04	1.06E-04	2.53E-04	potential residence	0.00	2027	0.00
564850_4183750	564850	4183750	6.21E-04	5.95E-04	5.86E-04	0.00E+00	4.28E-04	7.39E-04	1.03E-04	2.46E-04	potential residence	0.00	2027	0.00
564870_4183750	564870	4183750	6.17E-04	5.91E-04	5.82E-04	0.00E+00	4.18E-04	7.21E-04	1.01E-04	2.40E-04	potential residence	0.00	2027	0.00
564890_4183750	564890	4183750	6.15E-04	5.89E-04	5.80E-04	0.00E+00	4.10E-04	7.07E-04	9.86E-05	2.35E-04	potential residence	0.00	2027	0.00
564910_4183750	564910	4183750	5.95E-04	5.70E-04	5.61E-04	0.00E+00	3.96E-04	6.84E-04	9.54E-05	2.28E-04	potential residence	0.00	2027	0.00
564930_4183750	564930	4183750	5.73E-04	5.49E-04	5.41E-04	0.00E+00	3.85E-04	6.64E-04	9.26E-05	2.21E-04	potential residence	0.00	2027	0.00
564950_4183750	564950	4183750	5.50E-04	5.27E-04	5.19E-04	0.00E+00	3.71E-04	6.40E-04	8.93E-05	2.13E-04	potential residence	0.00	2027	0.00
564370_4183770	564370	4183770	1.54E-04	1.44E-04	1.42E-04	0.00E+00	2.66E-04	4.60E-04	6.43E-05	1.53E-04	potential residence	0.00	2027	0.00
564390_4183770	564390	4183770	1.66E-04	1.56E-04	1.54E-04	0.00E+00	2.86E-04	4.93E-04	6.89E-05	1.64E-04	potential residence	0.00	2027	0.00
564410_4183770	564410	4183770	1.80E-04	1.70E-04	1.67E-04	0.00E+00	3.05E-04	5.25E-04	7.34E-05	1.75E-04	potential residence	0.00	2027	0.00
564430_4183770	564430	4183770	1.95E-04	1.84E-04	1.82E-04	0.00E+00	3.20E-04	5.53E-04	7.72E-05	1.84E-04	potential residence	0.00	2027	0.00
564450_4183770	564450	4183770	2.13E-04	2.01E-04	1.98E-04	0.00E+00	3.35E-04	5.78E-04	8.08E-05	1.92E-04	potential residence	0.00	2027	0.00
564470_4183770	564470	4183770	2.32E-04	2.19E-04	2.16E-04	0.00E+00	3.47E-04	5.98E-04	8.35E-05	1.99E-04	potential residence	0.00	2027	0.00
564490_4183770	564490	4183770	2.54E-04	2.40E-04	2.37E-04	0.00E+00	3.59E-04	6.19E-04	8.65E-05	2.06E-04	potential residence	0.00	2027	0.00
564510_4183770	564510	4183770	2.78E-04	2.64E-04	2.60E-04	0.00E+00	3.73E-04	6.43E-04	8.98E-05	2.14E-04	potential residence	0.00	2027	0.00
564530_4183770	564530	4183770	3.02E-04	2.87E-04	2.83E-04	0.00E+00	3.84E-04	6.62E-04	9.25E-05	2.20E-04	potential residence	0.00	2027	0.00
564550_4183770	564550	4183770	3.26E-04	3.10E-04	3.05E-04	0.00E+00	3.92E-04	6.76E-04	9.43E-05	2.25E-04	potential residence	0.00	2027	0.00
564570_4183770	564570	4183770	3.51E-04	3.34E-04	3.29E-04	0.00E+00	3.99E-04	6.89E-04	9.62E-05	2.29E-04	potential residence	0.00	2027	0.00
564590_4183770	564590	4183770	3.73E-04	3.56E-04	3.50E-04	0.00E+00	4.03E-04	6.96E-04	9.71E-05	2.31E-04	potential residence	0.00	2027	0.00
564610_4183770	564610	4183770	3.92E-04	3.74E-04	3.68E-04	0.00E+00	4.05E-04	6.99E-04	9.75E-05	2.32E-04	potential residence	0.00	2027	0.00
564630_4183770	564630	4183770	4.09E-04	3.91E-04	3.85E-04	0.00E+00	4.08E-04	7.04E-04	9.82E-05	2.34E-04	potential residence	0.00	2027	0.00
564650_4183770	564650	4183770	4.29E-04	4.09E-04	4.03E-04	0.00E+00	4.15E-04	7.15E-04	9.98E-05	2.38E-04	potential residence	0.00	2027	0.00
564670_4183770	564670	4183770	4.43E-04	4.23E-04	4.17E-04	0.00E+00	4.17E-04	7.19E-04	1.00E-04	2.39E-04	potential residence	0.00	2027	0.00
564690_4183770	564690	4183770	4.56E-04	4.36E-04	4.29E-04	0.00E+00	4.18E-04	7.21E-04	1.01E-04	2.40E-04	potential residence	0.00	2027	0.00
564710_4183770	564710	4183770	4.69E-04	4.48E-04	4.41E-04	0.00E+00	4.29E-04	7.39E-04	1.03E-04	2.46E-04	potential residence	0.00	2027	0.00
564730_4183770	564730	4183770	4.79E-04	4.58E-04	4.51E-04	0.00E+00	4.26E-04	7.36E-04	1.03E-04	2.45E-04	potential residence	0.00	2027	0.00
564750_4183770	564750	4183770	5.06E-04	4.84E-04	4.77E-04	0.00E+00	4.21E-04	7.27E-04	1.01E-04	2.42E-04	potential residence	0.00	2027	0.00
564770_4183770	564770	4183770	5.11E-04	4.89E-04	4.81E-04	0.00E+00	4.14E-04	7.14E-04	9.96E-05	2.37E-04	potential residence	0.00	2027	0.00
564790_4183770	564790	4183770	5.14E-04	4.92E-04	4.84E-04	0.00E+00	4.04E-04	6.97E-04	9.73E-05	2.32E-04	potential residence	0.00	2027	0.00
564810_4183770	564810	4183770	5.17E-04	4.95E-04	4.87E-04	0.00E+00	3.94E-04	6.79E-04	9.48E-05	2.26E-04	potential residence	0.00	2027	0.00
564830_4183770	564830	4183770	5.20E-04	4.98E-04	4.90E-04	0.00E+00	3.84E-04	6.63E-04	9.25E-05	2.21E-04	potential residence	0.00	2027	0.00
564850_4183770	564850	4183770	5.24E-04	5.02E-04	4.94E-04	0.00E+00	3.77E-04	6.50E-04	9.07E-05	2.16E-04	potential residence	0.00	2027	0.00
564870_4183770	564870	4183770	5.28E-04	5.05E-04	4.97E-04	0.00E+00	3.70E-04	6.38E-04	8.91E-05	2.12E-04	potential residence	0.00	2027	0.00
564890_4183770	564890	4183770	5.18E-04	4.96E-04	4.88E-04	0.00E+00	3.57E-04	6.16E-04	8.60E-05	2.05E-04	potential residence	0.00	2027	0.00
564910_4183770	564910	4183770	5.02E-04	4.80E-04	4.73E-04	0.00E+00	3.45E-04	5.95E-04	8.31E-05	1.98E-04	potential residence	0.00	2027	0.00
564930_4183770	564930	4183770	4.86E-04	4.65E-04	4.58E-04	0.00E+00	3.34E-04	5.77E-04	8.05E-05	1.92E-04	potential residence	0.00	2027	0.00
564410_4183790	564410	4183790	1.74E-04	1.64E-04	1.62E-04	0.00E+00	2.75E-04	4.75E-04	6.63E-05	1.58E-04	potential residence	0.00	2027	0.00
564430_4183790	564430	4183790	1.87E-04	1.77E-04	1.74E-04	0.00E+00	2.85E-04	4.92E-04	6.87E-05	1.64E-04	potential residence	0.00	2027	0.00
564450_4183790	564450	4183790	2.03E-04	1.92E-04	1.89E-04	0.00E+00	2.95E-04	5.09E-04	7.11E-05	1.69E-04	potential residence	0.00	2027	0.00
564470_4183790	564470	4183790	2.20E-04	2.09E-04	2.06E-04	0.00E+00	3.05E-04	5.26E-04	7.35E-05	1.75E-04	potential residence	0.00	2027	0.00
564490_4183790	564490	4183790	2.38E-04	2.26E-04	2.22E-04	0.00E+00	3.13E-04	5.39E-04	7.53E-05	1.79E-04	potential residence	0.00	2027	0.00
564510_4183790	564510	4183790	2.58E-04	2.45E-04	2.42E-04	0.00E+00	3.24E-04	5.58E-04	7.80E-05	1.86E-04	potential residence	0.00	2027	0.00
564530_4183790	564530	4183790	2.77E-04	2.64E-04	2.60E-04	0.00E+00	3.32E-04	5.73E-04	8.00E-05	1.91E-04	potential residence	0.00	2027	0.00
564550_4183790	564550	4183790	2.97E-04	2.82E-04	2.78E-04	0.00E+00	3.40E-04	5.86E-04	8.19E-05	1.95E-04	potential residence	0.00	2027	0.00
564570_4183790	564570	4183790	3.13E-04	2.98E-04	2.94E-04	0.00E+00	3.43E-04	5.92E-04	8.26E-05	1.97E-04	potential residence	0.00	2027	0.00
564590_4183790	564590	4183790	3.28E-04	3.13E-04	3.08E-04	0.00E+00	3.44E-04	5.94E-04	8.29E-05	1.97E-04	potential residence	0.00	2027	0.00
564610_4183790	564610	4183790	3.40E-04	3.25E-04	3.20E-04	0.00E+00	3.44E-04	5.94E-04	8.29E-05	1.98E-04	potential residence	0.00	2027	0.00
564630_4183790	564630	4183790	3.53E-04	3.37E-04	3.32E-04	0.00E+00	3.47E-04	5.99E-04	8.36E-05	1.99E-04	potential residence	0.00	2027	0.00
564650_4183790	564650	4183790	3.69E-04	3.52E-04	3.47E-04	0.00E+00	3.54E-04	6.11E-04	8.52E-05	2.03E-04	potential residence	0.00	2027	0.00
564670_4183790	564670	4183790	3.82E-04	3.65E-04	3.59E-04	0.00E+00	3.68E-04	6.34E-04	8.85E-05	2.11E-04	potential residence	0.00	2027	0.00
564690_4183790	564690	4183790	3.91E-04	3.73E-04	3.67E-04	0.00E+00	3.60E-04	6.20E-04	8.65E-05	2.06E-04	potential residence	0.00	2027	0.00
564710_4183790	564710	4183790	4.23E-04	4.04E-04	3.98E-04	0.00E+00	3.73E-04	6.43E-04	8.98E-05	2.14E-04	potential residence	0.00	2027	0.00
564730_4183790	564730	4183790	4.43E-04	4.24E-04	4.17E-04	0.00E+00	3.82E-04	6.59E-04	9.20E-05	2.19E-04	potential residence	0.00	2027	0.00
564750_4183790	564750	4183790	4.30E-04	4.11E-04	4.05E-04	0.00E+00	3.66E-04	6.32E-04	8.82E-05	2.10E-04	potential residence	0.00	2027	0.00
564770_4183790	564770	4183790	4.29E-04	4.10E-04	4.04E-04	0.00E+00	3.59E-04	6.19E-04	8.64E-05	2.06E-04	potential residence	0.00	2027	0.00
564790_4183790	564790	4183790	4.32E-04	4.13E-04	4.07E-04	0.00E+00	3.52E-04	6.08E-04	8.48E-05	2.02E-04	potential residence	0.00	2027	0.00
564810_4183790	564810	4183790	4.36E-04	4.17E-04	4.10E-04	0.00E+00	3.45E-04	5.95E-04	8.31E-05	1.98E-04	potential residence	0.00	2027	0.00
564830_4183790	564830	4183790	4.38E-04	4.19E-04	4.13E-04	0.00E+00	3.37E-04	5.82E-04	8.12E-05	1.94E-04	potential residence	0.00	2027	0.00
564850_4183790	564850	4183790	4.45E-04	4.25E-04	4.19E-04	0.00E+00	3.32E-04	5.74E-04	8.00E-05	1.91E-04	potential residence	0.00	2027	0.00
564870_4183790	564870	4183790	4.43E-04	4.24E-04	4.17E-04	0.00E+00	3.21E-04	5.54E-04	7.74E-05	1.84E-04	potential residence	0.00	2027	0.00
564890_4183790	564890	4183790	4.37E-04	4.18E-04	4.11E-04	0.00E+00	3.12E-04	5.39E-04	7.52E-05	1.79E-04	potential residence	0.00	2027	0.00
564910_4183790	564910	4183790	4.29E-04	4.10E-04	4.04E-04	0.00E+00	3.04E-04	5.25E-04	7.33E-05	1.75E-04	potential residence	0.00	2027	0.00
564930_4183790	564930	4183790	4.20E-04	4.01E-04	3.95E-04	0.00E+00	2.97E-04	5.13E-04	7.16E-05	1.71E-04	potential residence	0.00	2027	0.00
564450_4183810	564450	4183810	1.93E-04	1.83E-04	1.80E-04	0.00E+00	2.62E-04	4.52E-04	6.31E-05	1.50E-04	potential residence	0.00	2027	0.00
564470_4183810	564470	4183810	2.08E-04	1.97E-04	1.94E-04	0.00E+00	2.69E-04	4.65E-04	6.49E-05	1.55E-04	potential residence	0.00	2027	0.00
564490_4183810	564490	4183810	2.24E-04	2.12E-04	2.09E-04	0.00E+00	2.77E-04	4.77E-04	6.67E-05	1.59E-04	potential residence	0.00	2027	0.00
564510_4183810	564510	4183810	2.39E-04	2.27E-04	2.24E-04	0.00E+00	2.84E-04	4.90E-04	6.85E-05	1.63E-04	School	0.00	2027	0.00
564530_4183810	564530	4183810	2.55E-04	2.42E-04	2.39E-04	0.00E+00	2.92E-04	5.03E-04	7.03E-05	1.67E-04	School	0.00	2027	0.00
564550_4183810	564550	4183810	2.69E-04	2.56E-04	2.52E-04	0.00E+00	2.97E-04	5.13E-04	7.16E-05	1.71E-04	potential residence	0.00	2027	0.00
564570_4183810	564570	4183810	2.80E-04	2.67E-04	2.63E-04	0.00E+00	2.99E-04	5.15E-04	7.19E-05	1.71E-04	potential residence	0.00	2027	0.00
564590_4183810	564590	4183810	2.91E-04	2.77E-04	2.73E-04	0.00E+00	2.99E-04	5.16E-04	7.21E-05	1.72E-04	potential residence	0.00	2027	0.00
564610_4183810	564610	4183810	3.01E-04	2.86E-04	2.82E-04	0.00E+00	3.00E-04	5.18E-04	7.23E-05	1.72E-04	potential residence	0.00	2027	0.00
564630_4183810	564630	4183810	3.10E-04	2.95E-04	2.91E-04	0.00E+00	3.01E-04	5.20E-04	7.26E-05	1.73E-04	potential residence	0.00	2027	0.00
564650_4183810	564650	4183810	3.21E-04	3.06E-04	3.02E-04	0.00E+00	3.06E-04	5.28E-04	7.37E-05	1.76E-04	potential residence	0.00	2027	0.00
564670_4183810	564670	4183810	3.32E-04	3.17E-04	3.12E-04	0.00E+00	3.18E-04	5.49E-04	7.66E-05	1.83E-04	potential residence	0.00	2027	0.00
564690_4183810	564690	4183810	3.41E-04	3.26E-04	3.21E-04	0.00E+00	3.21E-04	5.53E-04	7.72E-05	1.84E-04	potential residence	0.00	2027	0.00
564710_4183810	564710	4183810	3.62E-04	3.46E-04	3.41E-04	0.00E+00	3.23E-04	5.56E-04	7.77E-05	1.85E-04	potential residence	0.00	2027	0.00
564730_4183810	564730	4183810	3.48E-04	3.32E-04	3.27E-04	0.00E+00	3.20E-04	5.51E-04	7.69E-05	1.83E-04	potential residence	0.00	2027	0.00
564750_4183810	564750	4183810	3.50E-04	3.34E-04	3.29E-04	0.00E+00	3.18E-04	5.48E-04	7.65E-05	1.82E-04	potential residence	0.00	2027	0.00
564770_4183810	564770	4183810	3.66E-04	3.50E-04	3.45E-04	0.00E+00	3.14E-04	5.42E-04	7.57E-05	1.80E-04	potential residence	0.00	2027	0.00
564790_4183810	564790	4183810	3.69E-04	3.53E-04	3.48E-04	0.00E+00	3.10E-04	5.35E-04	7.46E-05	1.78E-04	potential residence	0.00	2027	0.00
564810_4183810	564810	4183810	3.72E-04	3.56E-04	3.50E-04	0.00E+00	3.04E-04	5.25E-04	7.33E-05	1.75E-04	potential residence	0.00	2027	0.00
564830_4183810	564830	4183810	3.74E-04	3.58E-04	3.53E-04	0.00E+00	2.98E-04	5.15E-04	7.18E-05	1.71E-04	potential residence	0.00	2027	0.00
564850_4183810	564850	4183810	3.76E-04	3.60E-04	3.54E-04	0.00E+00	2.92E-04	5.04E-04	7.03E-05	1.68E-04	potential residence	0.00	2027	0.00
564870_4183810	564870	4183810	3.80E-04	3.64E-04	3.58E-04	0.00E+00	2.88E-04	4.97E-04	6.94E-05	1.65E-04	potential residence	0.00	2027	0.00
564890_4183810	564890	4183810	3.75E-04	3.59E-04	3.54E-04	0.00E+00	2.80E-04	4.83E-04	6.75E-05	1.61E-04	potential residence	0.00	2027	0.00
564910_4183810	564910	4183810	3.70E-04	3.54E-04	3.49E-04	0.00E+00	2.73E-04	4.72E-04	6.58E-05	1.57E-04	potential residence	0.00	2027	0.00
564930_4183810	564930	4183810	3.64E-04	3.48E-04	3.43E-04	0.00E+00	2.66E-04	4.59E-04	6.40E-05	1.53E-04	potential residence	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	C_{DPM}/REL Max DPM	Max Year	HI
564470_418383C	564470	4183830	1.96E-04	1.86E-04	1.83E-04	0.00E+00	2.40E-04	4.14E-04	5.78E-05	1.38E-04	School	0.00	2027	0.00
564490_418383C	564490	4183830	2.08E-04	1.97E-04	1.94E-04	0.00E+00	2.45E-04	4.22E-04	5.90E-05	1.40E-04	School	0.00	2027	0.00
564510_418383C	564510	4183830	2.20E-04	2.09E-04	2.06E-04	0.00E+00	2.50E-04	4.32E-04	6.03E-05	1.44E-04	School	0.00	2027	0.00
564530_418383C	564530	4183830	2.31E-04	2.20E-04	2.17E-04	0.00E+00	2.56E-04	4.42E-04	6.17E-05	1.47E-04	School	0.00	2027	0.00
564550_418383C	564550	4183830	2.43E-04	2.31E-04	2.28E-04	0.00E+00	2.62E-04	4.51E-04	6.30E-05	1.50E-04	School	0.00	2027	0.00
564570_418383C	564570	4183830	2.51E-04	2.40E-04	2.36E-04	0.00E+00	2.63E-04	4.54E-04	6.34E-05	1.51E-04	potential residence	0.00	2027	0.00
564590_418383C	564590	4183830	2.59E-04	2.47E-04	2.43E-04	0.00E+00	2.63E-04	4.54E-04	6.34E-05	1.51E-04	potential residence	0.00	2027	0.00
564610_418383C	564610	4183830	2.66E-04	2.54E-04	2.50E-04	0.00E+00	2.64E-04	4.55E-04	6.35E-05	1.51E-04	potential residence	0.00	2027	0.00
564630_418383C	564630	4183830	2.75E-04	2.62E-04	2.58E-04	0.00E+00	2.65E-04	4.58E-04	6.39E-05	1.52E-04	potential residence	0.00	2027	0.00
564650_418383C	564650	4183830	2.83E-04	2.70E-04	2.66E-04	0.00E+00	2.68E-04	4.62E-04	6.45E-05	1.54E-04	potential residence	0.00	2027	0.00
564670_418383C	564670	4183830	2.91E-04	2.78E-04	2.74E-04	0.00E+00	2.79E-04	4.81E-04	6.71E-05	1.60E-04	potential residence	0.00	2027	0.00
564690_418383C	564690	4183830	2.97E-04	2.83E-04	2.79E-04	0.00E+00	2.80E-04	4.83E-04	6.74E-05	1.61E-04	potential residence	0.00	2027	0.00
564710_418383C	564710	4183830	2.99E-04	2.86E-04	2.81E-04	0.00E+00	2.80E-04	4.83E-04	6.75E-05	1.61E-04	potential residence	0.00	2027	0.00
564730_418383C	564730	4183830	3.01E-04	2.88E-04	2.83E-04	0.00E+00	2.80E-04	4.84E-04	6.75E-05	1.61E-04	potential residence	0.00	2027	0.00
564750_418383C	564750	4183830	3.16E-04	3.01E-04	2.97E-04	0.00E+00	2.80E-04	4.83E-04	6.74E-05	1.61E-04	potential residence	0.00	2027	0.00
564770_418383C	564770	4183830	3.17E-04	3.03E-04	2.98E-04	0.00E+00	2.78E-04	4.79E-04	6.69E-05	1.59E-04	potential residence	0.00	2027	0.00
564790_418383C	564790	4183830	3.19E-04	3.05E-04	3.00E-04	0.00E+00	2.75E-04	4.74E-04	6.61E-05	1.58E-04	potential residence	0.00	2027	0.00
564810_418383C	564810	4183830	3.21E-04	3.07E-04	3.02E-04	0.00E+00	2.70E-04	4.66E-04	6.51E-05	1.55E-04	potential residence	0.00	2027	0.00
564830_418383C	564830	4183830	3.24E-04	3.10E-04	3.05E-04	0.00E+00	2.66E-04	4.59E-04	6.41E-05	1.53E-04	potential residence	0.00	2027	0.00
564850_418383C	564850	4183830	3.27E-04	3.12E-04	3.07E-04	0.00E+00	2.61E-04	4.51E-04	6.29E-05	1.50E-04	potential residence	0.00	2027	0.00
564870_418383C	564870	4183830	3.27E-04	3.13E-04	3.08E-04	0.00E+00	2.56E-04	4.42E-04	6.17E-05	1.47E-04	potential residence	0.00	2027	0.00
564890_418383C	564890	4183830	3.26E-04	3.12E-04	3.07E-04	0.00E+00	2.51E-04	4.33E-04	6.05E-05	1.44E-04	potential residence	0.00	2027	0.00
564910_418383C	564910	4183830	3.22E-04	3.08E-04	3.03E-04	0.00E+00	2.45E-04	4.22E-04	5.89E-05	1.40E-04	potential residence	0.00	2027	0.00
564930_418383C	564930	4183830	3.19E-04	3.05E-04	3.00E-04	0.00E+00	2.39E-04	4.12E-04	5.75E-05	1.37E-04	potential residence	0.00	2027	0.00
564510_418385C	564510	4183850	2.03E-04	1.93E-04	1.90E-04	0.00E+00	2.24E-04	3.87E-04	5.40E-05	1.29E-04	School	0.00	2027	0.00
564530_418385C	564530	4183850	2.10E-04	2.00E-04	1.97E-04	0.00E+00	2.27E-04	3.92E-04	5.47E-05	1.30E-04	School	0.00	2027	0.00
564550_418385C	564550	4183850	2.19E-04	2.09E-04	2.06E-04	0.00E+00	2.32E-04	4.01E-04	5.60E-05	1.33E-04	School	0.00	2027	0.00
564570_418385C	564570	4183850	2.26E-04	2.15E-04	2.12E-04	0.00E+00	2.34E-04	4.03E-04	5.63E-05	1.34E-04	potential residence	0.00	2027	0.00
564590_418385C	564590	4183850	2.32E-04	2.21E-04	2.17E-04	0.00E+00	2.33E-04	4.03E-04	5.62E-05	1.34E-04	potential residence	0.00	2027	0.00
564610_418385C	564610	4183850	2.37E-04	2.26E-04	2.23E-04	0.00E+00	2.33E-04	4.02E-04	5.62E-05	1.34E-04	potential residence	0.00	2027	0.00
564630_418385C	564630	4183850	2.44E-04	2.32E-04	2.29E-04	0.00E+00	2.34E-04	4.03E-04	5.63E-05	1.34E-04	potential residence	0.00	2027	0.00
564650_418385C	564650	4183850	2.50E-04	2.39E-04	2.35E-04	0.00E+00	2.36E-04	4.06E-04	5.67E-05	1.35E-04	potential residence	0.00	2027	0.00
564670_418385C	564670	4183850	2.57E-04	2.45E-04	2.41E-04	0.00E+00	2.45E-04	4.23E-04	5.90E-05	1.41E-04	potential residence	0.00	2027	0.00
564690_418385C	564690	4183850	2.62E-04	2.50E-04	2.46E-04	0.00E+00	2.47E-04	4.26E-04	5.95E-05	1.42E-04	potential residence	0.00	2027	0.00
564710_418385C	564710	4183850	2.63E-04	2.51E-04	2.48E-04	0.00E+00	2.48E-04	4.27E-04	5.96E-05	1.42E-04	potential residence	0.00	2027	0.00
564730_418385C	564730	4183850	2.65E-04	2.53E-04	2.49E-04	0.00E+00	2.48E-04	4.28E-04	5.98E-05	1.43E-04	potential residence	0.00	2027	0.00
564750_418385C	564750	4183850	2.76E-04	2.64E-04	2.60E-04	0.00E+00	2.48E-04	4.28E-04	5.98E-05	1.42E-04	potential residence	0.00	2027	0.00
564770_418385C	564770	4183850	2.77E-04	2.65E-04	2.61E-04	0.00E+00	2.47E-04	4.26E-04	5.95E-05	1.42E-04	potential residence	0.00	2027	0.00
564790_418385C	564790	4183850	2.79E-04	2.66E-04	2.62E-04	0.00E+00	2.45E-04	4.22E-04	5.90E-05	1.41E-04	potential residence	0.00	2027	0.00
564810_418385C	564810	4183850	2.80E-04	2.68E-04	2.64E-04	0.00E+00	2.42E-04	4.17E-04	5.82E-05	1.39E-04	potential residence	0.00	2027	0.00
564830_418385C	564830	4183850	2.83E-04	2.70E-04	2.66E-04	0.00E+00	2.38E-04	4.10E-04	5.73E-05	1.37E-04	potential residence	0.00	2027	0.00
564850_418385C	564850	4183850	2.85E-04	2.72E-04	2.68E-04	0.00E+00	2.34E-04	4.04E-04	5.64E-05	1.34E-04	potential residence	0.00	2027	0.00
564870_418385C	564870	4183850	2.86E-04	2.73E-04	2.69E-04	0.00E+00	2.30E-04	3.97E-04	5.54E-05	1.32E-04	potential residence	0.00	2027	0.00
564890_418385C	564890	4183850	2.86E-04	2.73E-04	2.69E-04	0.00E+00	2.26E-04	3.90E-04	5.44E-05	1.30E-04	potential residence	0.00	2027	0.00
564910_418385C	564910	4183850	2.84E-04	2.71E-04	2.67E-04	0.00E+00	2.21E-04	3.82E-04	5.33E-05	1.27E-04	potential residence	0.00	2027	0.00
564550_418387C	564550	4183870	1.99E-04	1.89E-04	1.87E-04	0.00E+00	2.08E-04	3.59E-04	5.02E-05	1.19E-04	School	0.00	2027	0.00
564570_418387C	564570	4183870	2.03E-04	1.94E-04	1.91E-04	0.00E+00	2.08E-04	3.59E-04	5.02E-05	1.20E-04	potential residence	0.00	2027	0.00
564590_418387C	564590	4183870	2.08E-04	1.98E-04	1.95E-04	0.00E+00	2.08E-04	3.58E-04	5.01E-05	1.19E-04	potential residence	0.00	2027	0.00
564610_418387C	564610	4183870	2.12E-04	2.02E-04	1.99E-04	0.00E+00	2.07E-04	3.57E-04	4.99E-05	1.19E-04	potential residence	0.00	2027	0.00
564630_418387C	564630	4183870	2.17E-04	2.07E-04	2.04E-04	0.00E+00	2.07E-04	3.58E-04	5.00E-05	1.19E-04	potential residence	0.00	2027	0.00
564650_418387C	564650	4183870	2.22E-04	2.12E-04	2.09E-04	0.00E+00	2.08E-04	3.59E-04	5.02E-05	1.20E-04	potential residence	0.00	2027	0.00
564670_418387C	564670	4183870	2.28E-04	2.17E-04	2.14E-04	0.00E+00	2.11E-04	3.64E-04	5.09E-05	1.21E-04	potential residence	0.00	2027	0.00
564690_418387C	564690	4183870	2.33E-04	2.22E-04	2.19E-04	0.00E+00	2.20E-04	3.79E-04	5.29E-05	1.26E-04	potential residence	0.00	2027	0.00
564710_418387C	564710	4183870	2.35E-04	2.24E-04	2.20E-04	0.00E+00	2.21E-04	3.81E-04	5.32E-05	1.27E-04	potential residence	0.00	2027	0.00
564730_418387C	564730	4183870	2.35E-04	2.24E-04	2.21E-04	0.00E+00	2.22E-04	3.82E-04	5.34E-05	1.27E-04	potential residence	0.00	2027	0.00
564750_418387C	564750	4183870	2.44E-04	2.33E-04	2.29E-04	0.00E+00	2.22E-04	3.83E-04	5.34E-05	1.27E-04	potential residence	0.00	2027	0.00
564770_418387C	564770	4183870	2.44E-04	2.33E-04	2.29E-04	0.00E+00	2.21E-04	3.81E-04	5.32E-05	1.27E-04	potential residence	0.00	2027	0.00
564790_418387C	564790	4183870	2.45E-04	2.34E-04	2.30E-04	0.00E+00	2.19E-04	3.78E-04	5.28E-05	1.26E-04	potential residence	0.00	2027	0.00
564810_418387C	564810	4183870	2.47E-04	2.36E-04	2.33E-04	0.00E+00	2.17E-04	3.75E-04	5.24E-05	1.25E-04	potential residence	0.00	2027	0.00
564830_418387C	564830	4183870	2.49E-04	2.38E-04	2.34E-04	0.00E+00	2.14E-04	3.70E-04	5.16E-05	1.23E-04	potential residence	0.00	2027	0.00
564850_418387C	564850	4183870	2.51E-04	2.40E-04	2.36E-04	0.00E+00	2.11E-04	3.64E-04	5.09E-05	1.21E-04	potential residence	0.00	2027	0.00
564870_418387C	564870	4183870	2.53E-04	2.41E-04	2.38E-04	0.00E+00	2.08E-04	3.59E-04	5.01E-05	1.19E-04	potential residence	0.00	2027	0.00
564590_418389C	564590	4183890	1.88E-04	1.79E-04	1.76E-04	0.00E+00	1.87E-04	3.22E-04	4.50E-05	1.07E-04	potential residence	0.00	2027	0.00
564610_418389C	564610	4183890	1.92E-04	1.82E-04	1.80E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	potential residence	0.00	2027	0.00
564630_418389C	564630	4183890	1.96E-04	1.87E-04	1.84E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	potential residence	0.00	2027	0.00
564650_418389C	564650	4183890	2.02E-04	1.92E-04	1.90E-04	0.00E+00	1.94E-04	3.35E-04	4.68E-05	1.12E-04	potential residence	0.00	2027	0.00
564670_418389C	564670	4183890	2.05E-04	1.95E-04	1.92E-04	0.00E+00	1.95E-04	3.36E-04	4.69E-05	1.12E-04	potential residence	0.00	2027	0.00
564690_418389C	564690	4183890	2.08E-04	1.99E-04	1.96E-04	0.00E+00	1.96E-04	3.39E-04	4.73E-05	1.13E-04	potential residence	0.00	2027	0.00
564710_418389C	564710	4183890	2.09E-04	2.00E-04	1.96E-04	0.00E+00	1.98E-04	3.41E-04	4.76E-05	1.13E-04	potential residence	0.00	2027	0.00
564730_418389C	564730	4183890	2.09E-04	1.99E-04	1.96E-04	0.00E+00	1.98E-04	3.42E-04	4.78E-05	1.14E-04	potential residence	0.00	2027	0.00
564750_418389C	564750	4183890	2.17E-04	2.07E-04	2.04E-04	0.00E+00	1.99E-04	3.43E-04	4.79E-05	1.14E-04	potential residence	0.00	2027	0.00
564770_418389C	564770	4183890	2.17E-04	2.07E-04	2.03E-04	0.00E+00	1.98E-04	3.42E-04	4.78E-05	1.14E-04	potential residence	0.00	2027	0.00
564790_418389C	564790	4183890	2.18E-04	2.08E-04	2.05E-04	0.00E+00	1.98E-04	3.41E-04	4.77E-05	1.14E-04	potential residence	0.00	2027	0.00
564810_418389C	564810	4183890	2.20E-04	2.10E-04	2.07E-04	0.00E+00	1.97E-04	3.39E-04	4.73E-05	1.13E-04	potential residence	0.00	2027	0.00
564830_418389C	564830	4183890	2.22E-04	2.11E-04	2.08E-04	0.00E+00	1.94E-04	3.35E-04	4.68E-05	1.12E-04	potential residence	0.00	2027	0.00
564850_418389C	564850	4183890	2.23E-04	2.13E-04	2.10E-04	0.00E+00	1.92E-04	3.31E-04	4.62E-05	1.10E-04	potential residence	0.00	2027	0.00
564630_418391C	564630	4183910	1.78E-04	1.70E-04	1.67E-04	0.00E+00	1.68E-04	2.90E-04	4.06E-05	9.65E-05	potential residence	0.00	2027	0.00
564650_418391C	564650	4183910	1.83E-04	1.75E-04	1.72E-04	0.00E+00	1.75E-04	3.03E-04	4.23E-05	1.01E-04	potential residence	0.00	2027	0.00
564670_418391C	564670	4183910	1.85E-04	1.77E-04	1.74E-04	0.00E+00	1.75E-04	3.03E-04	4.23E-05	1.01E-04	potential residence	0.00	2027	0.00
564690_418391C	564690	4183910	1.87E-04	1.78E-04	1.76E-04	0.00E+00	1.77E-04	3.05E-04	4.25E-05	1.01E-04	potential residence	0.00	2027	0.00
564710_418391C	564710	4183910	1.88E-04	1.79E-04	1.76E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	potential residence	0.00	2027	0.00
564730_418391C	564730	4183910	1.87E-04	1.78E-04	1.76E-04	0.00E+00	1.79E-04	3.08E-04	4.31E-05	1.03E-04	potential residence	0.00	2027	0.00
564750_418391C	564750	4183910	1.94E-04	1.85E-04	1.82E-04	0.00E+00	1.79E-04	3.09E-04	4.32E-05	1.03E-04	potential residence	0.00	2027	0.00
564770_418391C	564770	4183910	1.94E-04	1.85E-04	1.82E-04	0.00E+00	1.80E-04	3.10E-04	4.33E-05	1.03E-04	potential residence	0.00	2027	0.00
564790_418391C	564790	4183910	1.95E-04	1.86E-04	1.83E-04	0.00E+00	1.79E-04	3.09E-04	4.32E-05	1.03E-04	potential residence	0.00	2027	0.00
564810_418391C	564810	4183910	1.96E-04	1.87E-04	1.84E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	potential residence	0.00	2027	0.00
564610_418391C	564610	4183910	1.74E-04	1.66E-04	1.63E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.64E-05	potential residence	0.00	2027	0.00
564590_418391C	564590	4183910	1.70E-04	1.62E-04	1.60E-04	0.00E+00	1.69E-04	2.91E-04	4.06E-05	9.68E-05	potential residence	0.00	2027	0.00
564570_418391C	564570	4183910	1.67E-04	1.59E-04	1.56E-04	0.00E+00	1.69E-04	2.92E-04	4.07E-05	9.70E-05	potential residence	0.00	2027	0.00
564550_418391C	564550	4183910	1.66E-04	1.58E-04	1.56E-04	0.00E+00	1.77E-04	3.06E-04	4.28E-05	1.02E-04	potential residence	0.00	2027	0.00
564530_418391C	564530	4183910	1.62E-04	1.54E-04	1.52E-04	0.00E+00	1.70E-04	2.93E-04	4.09E-05	9.74E-05	potential residence	0.00	2027	0.00
564510_418391C	564510	4183910	1.58E-04	1.50E-04	1.48E-04	0.00E+00	1.66E-04	2.86E-04	4.00E-05	9.52E-05	potential residence	0.00	2027	0.00
564490_418391C	564490	4183910	1.53E-04	1.46E-04	1.44E-04	0.00E+00	1.63E-04	2.81E-04	3.92E-05	9.33E-05	potential residence	0.00	2027	0.00
564470_418391C	564470	4183910	1.48E-04	1.41E-04	1.39E-04	0.00E+00	1.59E-04	2.75E-04	3.84E-05	9.13E-05	School	0.00	2027	0.00
564450_418391C	564450	4183910	1.43E-04	1.36E-04	1.34E-04	0.00E+00	1.56E-04	2.70E-04	3.77E-05	8.97E-05	School	0.00	2027	0.00
564430_418391C	564430	4183910	1.37E-04	1.30E-04	1.28E-04	0.00E+00	1.53E-04	2.64E-04	3.69E-05	8.79E-05	potential residence	0.00	2027	0.00
564410_418391C	564410	4183910	1.31E-04	1.24E-04	1.22E-04	0.00E+00	1.51E-04	2.61E-04	3.64E-05	8.67E-05	potential residence	0.00	2027	0.00
564390_418391C	564390	4183910	1.24E-04	1.18E-04	1.16E-04	0.00E+00	1.49E-04	2.57E-04	3.59E-05	8.55E-05	potential residence	0.00	2027	0.00
564370_418391C	564370	4183910	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.47E-04	2.53E-04	3.54E-05	8.42E-05	potential residence	0.00	2027	0.00
564350_418391C	564350	4183910	1.13E-04	1.07E-04	1.05E-04	0.00E+00	1.44E-04	2.49E-04	3.48E-05	8.28E-05	potential residence	0.00	2027	0.00
564570_418389C	564570	4183890	1.84E-04	1.75E-04	1.73E-04	0.00E+00	1.87E-04	3.23E-04	4.52E-05	1.08E-04	potential residence	0.00	2027	0.00
564550_418389C	564550	4183890	1.80E-04	1.72E-04	1.69E-04	0.00E+00	1.87E-04	3.22E-04	4.50E-05	1.07E-04	potential residence	0.00	2027	0.00
564530_418389C	564530	4183890	1.77E-04	1.68E-04	1.65E-04	0.00E+00	1.86E-04	3.20E-04	4.48E-05	1.07E-04	potential residence	0.00	2027	0.00
564510_418389C	564510	4183890	1.71E-04	1.63E-04	1.61E-04	0.00E+00	1.82E-04	3.15E-04	4.40E-05	1.05E-04	School	0.00	2027	0.00

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Mitigated HI Risk

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	C_{DPM}/REL Max DPM	Max Year	HI
564490_4183890	564490	4183890	1.65E-04	1.57E-04	1.55E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	School	0.00	2027	0.00
564470_4183890	564470	4183890	1.59E-04	1.51E-04	1.49E-04	0.00E+00	1.74E-04	3.01E-04	4.21E-05	1.00E-04	School	0.00	2027	0.00
564450_4183890	564450	4183890	1.53E-04	1.45E-04	1.43E-04	0.00E+00	1.72E-04	2.96E-04	4.14E-05	9.86E-05	School	0.00	2027	0.00
564430_4183890	564430	4183890	1.45E-04	1.38E-04	1.36E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.64E-05	potential residence	0.00	2027	0.00
564410_4183890	564410	4183890	1.38E-04	1.31E-04	1.29E-04	0.00E+00	1.66E-04	2.86E-04	4.00E-05	9.51E-05	potential residence	0.00	2027	0.00
564390_4183890	564390	4183890	1.31E-04	1.24E-04	1.22E-04	0.00E+00	1.63E-04	2.81E-04	3.93E-05	9.34E-05	potential residence	0.00	2027	0.00
564370_4183890	564370	4183890	1.24E-04	1.18E-04	1.16E-04	0.00E+00	1.60E-04	2.77E-04	3.87E-05	9.20E-05	potential residence	0.00	2027	0.00
564350_4183890	564350	4183890	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.57E-04	2.71E-04	3.78E-05	9.00E-05	potential residence	0.00	2027	0.00
564530_4183870	564530	4183870	1.92E-04	1.83E-04	1.80E-04	0.00E+00	2.04E-04	3.53E-04	4.93E-05	1.17E-04	School	0.00	2027	0.00
564510_4183870	564510	4183870	1.85E-04	1.76E-04	1.74E-04	0.00E+00	2.00E-04	3.45E-04	4.83E-05	1.15E-04	School	0.00	2027	0.00
564490_4183870	564490	4183870	1.79E-04	1.70E-04	1.67E-04	0.00E+00	1.96E-04	3.39E-04	4.73E-05	1.13E-04	School	0.00	2027	0.00
564470_4183870	564470	4183870	1.71E-04	1.62E-04	1.60E-04	0.00E+00	1.93E-04	3.33E-04	4.65E-05	1.11E-04	School	0.00	2027	0.00
564450_4183870	564450	4183870	1.63E-04	1.55E-04	1.52E-04	0.00E+00	1.90E-04	3.27E-04	4.57E-05	1.09E-04	School	0.00	2027	0.00
564430_4183870	564430	4183870	1.54E-04	1.46E-04	1.44E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	School	0.00	2027	0.00
564410_4183870	564410	4183870	1.46E-04	1.38E-04	1.36E-04	0.00E+00	1.83E-04	3.15E-04	4.41E-05	1.05E-04	potential residence	0.00	2027	0.00
564390_4183870	564390	4183870	1.38E-04	1.31E-04	1.29E-04	0.00E+00	1.80E-04	3.10E-04	4.33E-05	1.03E-04	potential residence	0.00	2027	0.00
564370_4183870	564370	4183870	1.30E-04	1.23E-04	1.21E-04	0.00E+00	1.75E-04	3.02E-04	4.22E-05	1.00E-04	potential residence	0.00	2027	0.00
564350_4183870	564350	4183870	1.22E-04	1.16E-04	1.14E-04	0.00E+00	1.70E-04	2.93E-04	4.09E-05	9.74E-05	Daycare	0.00	2027	0.00
564330_4183870	564330	4183870	1.15E-04	1.09E-04	1.07E-04	0.00E+00	1.64E-04	2.82E-04	3.94E-05	9.38E-05	Daycare	0.00	2027	0.00
564490_4183850	564490	4183850	1.93E-04	1.83E-04	1.81E-04	0.00E+00	2.19E-04	3.78E-04	5.27E-05	1.26E-04	School	0.00	2027	0.00
564470_4183850	564470	4183850	1.83E-04	1.74E-04	1.71E-04	0.00E+00	2.14E-04	3.69E-04	5.15E-05	1.23E-04	School	0.00	2027	0.00
564450_4183850	564450	4183850	1.73E-04	1.64E-04	1.62E-04	0.00E+00	2.10E-04	3.62E-04	5.06E-05	1.21E-04	School	0.00	2027	0.00
564430_4183850	564430	4183850	1.63E-04	1.55E-04	1.52E-04	0.00E+00	2.06E-04	3.56E-04	4.98E-05	1.18E-04	School	0.00	2027	0.00
564410_4183850	564410	4183850	1.53E-04	1.45E-04	1.43E-04	0.00E+00	2.02E-04	3.48E-04	4.87E-05	1.16E-04	potential residence	0.00	2027	0.00
564390_4183850	564390	4183850	1.44E-04	1.36E-04	1.34E-04	0.00E+00	1.97E-04	3.40E-04	4.75E-05	1.13E-04	potential residence	0.00	2027	0.00
564370_4183850	564370	4183850	1.34E-04	1.27E-04	1.25E-04	0.00E+00	1.90E-04	3.28E-04	4.59E-05	1.09E-04	potential residence	0.00	2027	0.00
564350_4183850	564350	4183850	1.26E-04	1.19E-04	1.17E-04	0.00E+00	1.83E-04	3.16E-04	4.41E-05	1.05E-04	Daycare	0.00	2027	0.00
564330_4183850	564330	4183850	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.75E-04	3.02E-04	4.22E-05	1.00E-04	Daycare	0.00	2027	0.00
564310_4183850	564310	4183850	1.12E-04	1.05E-04	1.04E-04	0.00E+00	1.68E-04	2.89E-04	4.05E-05	9.62E-05	Daycare	0.00	2027	0.00
564450_4183830	564450	4183830	1.83E-04	1.74E-04	1.71E-04	0.00E+00	2.34E-04	4.04E-04	5.65E-05	1.34E-04	potential residence	0.00	2027	0.00
564430_4183830	564430	4183830	1.71E-04	1.62E-04	1.60E-04	0.00E+00	2.29E-04	3.96E-04	5.53E-05	1.32E-04	potential residence	0.00	2027	0.00
564410_4183830	564410	4183830	1.60E-04	1.51E-04	1.49E-04	0.00E+00	2.23E-04	3.85E-04	5.38E-05	1.28E-04	potential residence	0.00	2027	0.00
564390_4183830	564390	4183830	1.49E-04	1.41E-04	1.39E-04	0.00E+00	2.15E-04	3.71E-04	5.19E-05	1.23E-04	potential residence	0.00	2027	0.00
564370_4183830	564370	4183830	1.39E-04	1.31E-04	1.29E-04	0.00E+00	2.07E-04	3.56E-04	4.98E-05	1.19E-04	potential residence	0.00	2027	0.00
564350_4183830	564350	4183830	1.30E-04	1.23E-04	1.21E-04	0.00E+00	1.98E-04	3.41E-04	4.76E-05	1.13E-04	Daycare	0.00	2027	0.00
564330_4183830	564330	4183830	1.21E-04	1.14E-04	1.13E-04	0.00E+00	1.87E-04	3.23E-04	4.51E-05	1.07E-04	Daycare	0.00	2027	0.00
564310_4183830	564310	4183830	1.15E-04	1.08E-04	1.06E-04	0.00E+00	1.79E-04	3.08E-04	4.31E-05	1.02E-04	Daycare	0.00	2027	0.00
564430_4183810	564430	4183810	1.80E-04	1.70E-04	1.67E-04	0.00E+00	2.56E-04	4.41E-04	6.16E-05	1.47E-04	potential residence	0.00	2027	0.00
564410_4183810	564410	4183810	1.67E-04	1.58E-04	1.56E-04	0.00E+00	2.48E-04	4.28E-04	5.97E-05	1.42E-04	potential residence	0.00	2027	0.00
564390_4183810	564390	4183810	1.54E-04	1.46E-04	1.43E-04	0.00E+00	2.36E-04	4.07E-04	5.69E-05	1.35E-04	potential residence	0.00	2027	0.00
564370_4183810	564370	4183810	1.44E-04	1.36E-04	1.34E-04	0.00E+00	2.25E-04	3.89E-04	5.44E-05	1.29E-04	potential residence	0.00	2027	0.00
564350_4183810	564350	4183810	1.34E-04	1.26E-04	1.25E-04	0.00E+00	2.14E-04	3.69E-04	5.16E-05	1.23E-04	potential residence	0.00	2027	0.00
564330_4183810	564330	4183810	1.26E-04	1.18E-04	1.17E-04	0.00E+00	2.02E-04	3.48E-04	4.87E-05	1.16E-04	Daycare	0.00	2027	0.00
564390_4183790	564390	4183790	1.61E-04	1.52E-04	1.49E-04	0.00E+00	2.61E-04	4.50E-04	6.29E-05	1.50E-04	potential residence	0.00	2027	0.00
564370_4183790	564370	4183790	1.49E-04	1.40E-04	1.38E-04	0.00E+00	2.46E-04	4.25E-04	5.94E-05	1.41E-04	potential residence	0.00	2027	0.00
565230_4183390	565230	4183390	7.77E-04	7.39E-04	7.28E-04	0.00E+00	5.29E-04	9.13E-04	1.28E-04	3.03E-04	Daycare	0.00	2027	0.00
565250_4183390	565250	4183390	7.26E-04	6.91E-04	6.81E-04	0.00E+00	5.01E-04	8.64E-04	1.21E-04	2.87E-04	Daycare	0.00	2027	0.00
565230_4183370	565230	4183370	7.63E-04	7.26E-04	7.15E-04	0.00E+00	5.23E-04	9.03E-04	1.27E-04	3.00E-04	Daycare	0.00	2027	0.00
565250_4183370	565250	4183370	7.16E-04	6.81E-04	6.70E-04	0.00E+00	4.95E-04	8.55E-04	1.20E-04	2.84E-04	Daycare	0.00	2027	0.00
565230_4183350	565230	4183350	7.50E-04	7.12E-04	7.01E-04	0.00E+00	5.19E-04	8.96E-04	1.26E-04	2.98E-04	Daycare	0.00	2027	0.00
565250_4183350	565250	4183350	7.06E-04	6.70E-04	6.60E-04	0.00E+00	4.92E-04	8.50E-04	1.19E-04	2.82E-04	Daycare	0.00	2027	0.00

All Receptors - Construction Annual Average $PM_{2.5}$ Concentration

Haul Truck Trip Lengths

	Haul	Vendor	
Trip Length	20	7.3	miles
	32187	11748	meters

Haul Truck Adjustment Factor to Model

Source	Haul	Vendor
Route1	0.04	0.11
Route2	0.03	0.07

Modeled Routes

	Route1	Route2	
Trip Length	1336.4	842	meters

from AERMOD

				Days				Total Mitigated $PM_{2.5}$ (tons)		
Construction Year	Phase	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Calendar Days	Onsite Offroad	Haul Truck	Vendor Trips
2022	1	3/1/2022	12/31/2022	91	215	0	306	3.25E-03	1.36E-03	1.00E-04
2023	1	1/1/2023	12/31/2023	0	365	0	365	3.74E-03	5.30E-04	6.00E-05
2024	1	1/1/2024	8/15/2024	0	150	78	228	2.30E-03	3.20E-04	4.00E-05
2025	inactive	8/16/2024	1/4/2026	0	0	507	507	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	0	0	361	361	4.00E-03	4.90E-04	5.00E-05
2027	2	1/1/2027	12/31/2027	0	0	365	365	6.97E-03	1.08E-03	7.00E-05
2028	2	1/1/2028	12/31/2028	0	0	366	366	9.70E-04	9.00E-05	8.00E-05
2029	2	1/1/2029	2/13/2029	0	0	44	44	2.80E-04	4.00E-05	0.00E+00

				Total Mitigated $PM_{2.5}$ (g/s)		
Construction Year	Phase	Start Date	End Date	Construction	Route1	Route2
2022	1	3/1/2022	12/31/2022	1.12E-04	2.33E-06	1.47E-06
2023	1	1/1/2023	12/31/2023	1.08E-04	8.29E-07	5.23E-07
2024	1	1/1/2024	8/15/2024	1.06E-04	8.21E-07	5.18E-07
2025	inactive	8/16/2024	1/4/2026	0.00E+00	0.00E+00	0.00E+00
2026	2	1/5/2026	12/31/2026	1.16E-04	7.57E-07	4.77E-07
2027	2	1/1/2027	12/31/2027	2.01E-04	1.52E-06	9.57E-07
2028	2	1/1/2028	12/31/2028	2.78E-05	3.68E-07	2.32E-07
2029	2	1/1/2029	2/13/2029	6.68E-05	3.96E-07	2.50E-07

MAX	PM2.5	UTM X	UTM Y
Mitigated	0.03	564650	4183490
receptor type	potential residence		

	PM2.5	UTM X	UTM Y
Mitigated	0.02	564710	4183530
receptor type	Building B		

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

			Mitigated								Receptor Type	$PM_{2.5}$ Concentration	
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564550_4183170	564550	4183170	1.66E-04	1.55E-04	1.52E-04	0.00E+00	2.31E-04	4.00E-04	5.60E-05	1.33E-04	potential residence	0.00	2027
564570_4183170	564570	4183170	1.71E-04	1.59E-04	1.57E-04	0.00E+00	2.42E-04	4.17E-04	5.85E-05	1.39E-04	potential residence	0.00	2027
564590_4183170	564590	4183170	1.75E-04	1.64E-04	1.61E-04	0.00E+00	2.52E-04	4.35E-04	6.10E-05	1.44E-04	potential residence	0.00	2027
564610_4183170	564610	4183170	1.80E-04	1.68E-04	1.66E-04	0.00E+00	2.62E-04	4.53E-04	6.35E-05	1.50E-04	potential residence	0.00	2027
564630_4183170	564630	4183170	1.86E-04	1.74E-04	1.71E-04	0.00E+00	2.75E-04	4.75E-04	6.66E-05	1.58E-04	potential residence	0.00	2027
564650_4183170	564650	4183170	1.93E-04	1.80E-04	1.77E-04	0.00E+00	2.89E-04	5.00E-04	7.00E-05	1.66E-04	potential residence	0.00	2027
564670_4183170	564670	4183170	2.00E-04	1.87E-04	1.84E-04	0.00E+00	3.05E-04	5.26E-04	7.37E-05	1.75E-04	potential residence	0.00	2027
564690_4183170	564690	4183170	2.08E-04	1.94E-04	1.91E-04	0.00E+00	3.21E-04	5.55E-04	7.78E-05	1.84E-04	potential residence	0.00	2027
564510_4183190	564510	4183190	1.69E-04	1.58E-04	1.55E-04	0.00E+00	2.35E-04	4.06E-04	5.69E-05	1.35E-04	potential residence	0.00	2027
564530_4183190	564530	4183190	1.74E-04	1.63E-04	1.60E-04	0.00E+00	2.44E-04	4.22E-04	5.92E-05	1.40E-04	potential residence	0.00	2027
564550_4183190	564550	4183190	1.80E-04	1.68E-04	1.65E-04	0.00E+00	2.54E-04	4.39E-04	6.16E-05	1.46E-04	potential residence	0.00	2027
564570_4183190	564570	4183190	1.85E-04	1.73E-04	1.70E-04	0.00E+00	2.66E-04	4.59E-04	6.44E-05	1.52E-04	potential residence	0.00	2027
564590_4183190	564590	4183190	1.91E-04	1.78E-04	1.75E-04	0.00E+00	2.78E-04	4.80E-04	6.73E-05	1.59E-04	potential residence	0.00	2027
564610_4183190	564610	4183190	1.97E-04	1.83E-04	1.80E-04	0.00E+00	2.91E-04	5.03E-04	7.05E-05	1.67E-04	potential residence	0.00	2027
564630_4183190	564630	4183190	2.03E-04	1.89E-04	1.86E-04	0.00E+00	3.06E-04	5.28E-04	7.40E-05	1.75E-04	potential residence	0.00	2027
564650_4183190	564650	4183190	2.11E-04	1.96E-04	1.93E-04	0.00E+00	3.23E-04	5.57E-04	7.81E-05	1.85E-04	potential residence	0.00	2027
564670_4183190	564670	4183190	2.18E-04	2.03E-04	2.00E-04	0.00E+00	3.40E-04	5.87E-04	8.23E-05	1.95E-04	potential residence	0.00	2027
564690_4183190	564690	4183190	2.27E-04	2.11E-04	2.08E-04	0.00E+00	3.59E-04	6.20E-04	8.69E-05	2.06E-04	potential residence	0.00	2027
564710_4183190	564710	4183190	2.37E-04	2.20E-04	2.17E-04	0.00E+00	3.81E-04	6.58E-04	9.22E-05	2.19E-04	potential residence	0.00	2027
564730_4183190	564730	4183190	2.46E-04	2.30E-04	2.26E-04	0.00E+00	4.02E-04	6.94E-04	9.72E-05	2.31E-04	potential residence	0.00	2027
564470_4183210	564470	4183210	1.71E-04	1.59E-04	1.57E-04	0.00E+00	2.41E-04	4.16E-04	5.83E-05	1.38E-04	potential residence	0.00	2027
564490_4183210	564490	4183210	1.77E-04	1.65E-04	1.63E-04	0.00E+00	2.50E-04	4.31E-04	6.04E-05	1.43E-04	potential residence	0.00	2027
564510_4183210	564510	4183210	1.83E-04	1.71E-04	1.68E-04	0.00E+00	2.59E-04	4.47E-04	6.27E-05	1.49E-04	potential residence	0.00	2027
564530_4183210	564530	4183210	1.89E-04	1.77E-04	1.74E-04	0.00E+00	2.70E-04	4.66E-04	6.53E-05	1.55E-04	potential residence	0.00	2027
564550_4183210	564550	4183210	1.95E-04	1.82E-04	1.79E-04	0.00E+00	2.81E-04	4.86E-04	6.81E-05	1.61E-04	potential residence	0.00	2027
564570_4183210	564570	4183210	2.01E-04	1.88E-04	1.85E-04	0.00E+00	2.94E-04	5.07E-04	7.11E-05	1.69E-04	potential residence	0.00	2027
564590_4183210	564590	4183210	2.08E-04	1.94E-04	1.91E-04	0.00E+00	3.09E-04	5.33E-04	7.47E-05	1.77E-04	potential residence	0.00	2027
564610_4183210	564610	4183210	2.15E-04	2.00E-04	1.97E-04	0.00E+00	3.25E-04	5.61E-04	7.86E-05	1.86E-04	potential residence	0.00	2027
564630_4183210	564630	4183210	2.22E-04	2.07E-04	2.04E-04	0.00E+00	3.42E-04	5.90E-04	8.27E-05	1.96E-04	potential residence	0.00	2027
564650_4183210	564650	4183210	2.30E-04	2.15E-04	2.11E-04	0.00E+00	3.62E-04	6.24E-04	8.75E-05	2.07E-04	potential residence	0.00	2027
564670_4183210	564670	4183210	2.39E-04	2.22E-04	2.19E-04	0.00E+00	3.82E-04	6.60E-04	9.24E-05	2.19E-04	potential residence	0.00	2027
564690_4183210	564690	4183210	2.49E-04	2.32E-04	2.29E-04	0.00E+00	4.07E-04	7.03E-04	9.84E-05	2.33E-04	potential residence	0.00	2027
564430_4183230	564430	4183230	1.70E-04	1.59E-04	1.56E-04	0.00E+00	2.48E-04	4.28E-04	6.00E-05	1.42E-04	potential residence	0.00	2027
564450_4183230	564450	4183230	1.77E-04	1.65E-04	1.63E-04	0.00E+00	2.57E-04	4.44E-04	6.22E-05	1.47E-04	potential residence	0.00	2027
564470_4183230	564470	4183230	1.84E-04	1.72E-04	1.69E-04	0.00E+00	2.67E-04	4.60E-04	6.45E-05	1.53E-04	potential residence	0.00	2027
564490_4183230	564490	4183230	1.92E-04	1.79E-04	1.76E-04	0.00E+00	2.76E-04	4.77E-04	6.69E-05	1.59E-04	potential residence	0.00	2027
564510_4183230	564510	4183230	1.99E-04	1.86E-04	1.83E-04	0.00E+00	2.87E-04	4.96E-04	6.96E-05	1.65E-04	potential residence	0.00	2027
564530_4183230	564530	4183230	2.06E-04	1.92E-04	1.89E-04	0.00E+00	2.99E-04	5.17E-04	7.24E-05	1.72E-04	potential residence	0.00	2027
564550_4183230	564550	4183230	2.14E-04	1.99E-04	1.96E-04	0.00E+00	3.13E-04	5.41E-04	7.58E-05	1.80E-04	potential residence	0.00	2027
564570_4183230	564570	4183230	2.21E-04	2.06E-04	2.03E-04	0.00E+00	3.28E-04	5.67E-04	7.95E-05	1.88E-04	potential residence	0.00	2027
564590_4183230	564590	4183230	2.28E-04	2.13E-04	2.09E-04	0.00E+00	3.45E-04	5.96E-04	8.36E-05	1.98E-04	potential residence	0.00	2027
564610_4183230	564610	4183230	2.36E-04	2.20E-04	2.16E-04	0.00E+00	3.64E-04	6.29E-04	8.82E-05	2.09E-04	potential residence	0.00	2027
564630_4183230	564630	4183230	2.44E-04	2.27E-04	2.24E-04	0.00E+00	3.85E-04	6.65E-04	9.32E-05	2.21E-04	potential residence	0.00	2027
564650_4183230	564650	4183230	2.53E-04	2.36E-04	2.32E-04	0.00E+00	4.09E-04	7.06E-04	9.90E-05	2.35E-04	potential residence	0.00	2027
564670_4183230	564670	4183230	2.64E-04	2.46E-04	2.42E-04	0.00E+00	4.35E-04	7.52E-04	1.05E-04	2.50E-04	potential residence	0.00	2027
564390_4183250	564390	4183250	1.66E-04	1.55E-04	1.52E-04	0.00E+00	2.52E-04	4.35E-04	6.10E-05	1.45E-04	potential residence	0.00	2027
564410_4183250	564410	4183250	1.74E-04	1.62E-04	1.60E-04	0.00E+00	2.63E-04	4.54E-04	6.37E-05	1.51E-04	potential residence	0.00	2027
564430_4183250	564430	4183250	1.82E-04	1.70E-04	1.67E-04	0.00E+00	2.74E-04	4.74E-04	6.64E-05	1.57E-04	potential residence	0.00	2027
564450_4183250	564450	4183250	1.91E-04	1.78E-04	1.75E-04	0.00E+00	2.85E-04	4.92E-04	6.90E-05	1.64E-04	potential residence	0.00	2027
564470_4183250	564470	4183250	1.99E-04	1.86E-04	1.83E-04	0.00E+00	2.96E-04	5.12E-04	7.17E-05	1.70E-04	potential residence	0.00	2027
564490_4183250	564490	4183250	2.08E-04	1.94E-04	1.91E-04	0.00E+00	3.08E-04	5.32E-04	7.45E-05	1.77E-04	potential residence	0.00	2027
564510_4183250	564510	4183250	2.17E-04	2.02E-04	1.99E-04	0.00E+00	3.21E-04	5.53E-04	7.76E-05	1.84E-04	potential residence	0.00	2027
564530_4183250	564530	4183250	2.26E-04	2.10E-04	2.07E-04	0.00E+00	3.35E-04	5.78E-04	8.11E-05	1.92E-04	potential residence	0.00	2027
564550_4183250	564550	4183250	2.34E-04	2.18E-04	2.15E-04	0.00E+00	3.51E-04	6.06E-04	8.49E-05	2.01E-04	potential residence	0.00	2027
564570_4183250	564570	4183250	2.43E-04	2.26E-04	2.23E-04	0.00E+00	3.69E-04	6.37E-04	8.92E-05	2.12E-04	potential residence	0.00	2027
564590_4183250	564590	4183250	2.52E-04	2.35E-04	2.31E-04	0.00E+00	3.90E-04	6.73E-04	9.44E-05	2.24E-04	potential residence	0.00	2027
564610_4183250	564610	4183250	2.61E-04	2.43E-04	2.39E-04	0.00E+00	4.13E-04	7.14E-04	1.00E-04	2.37E-04	potential residence	0.00	2027
564630_4183250	564630	4183250	2.70E-04	2.52E-04	2.48E-04	0.00E+00	4.39E-04	7.58E-04	1.06E-04	2.52E-04	potential residence	0.00	2027
564650_4183250	564650	4183250	2.81E-04	2.61E-04	2.57E-04	0.00E+00	4.67E-04	8.07E-04	1.13E-04	2.68E-04	potential residence	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
			Mitigated										
564350_418327C	564350	4183270	1.59E-04	1.48E-04	1.46E-04	0.00E+00	2.50E-04	4.32E-04	6.05E-05	1.44E-04	potential residence	0.00	2027
564370_418327C	564370	4183270	1.67E-04	1.56E-04	1.54E-04	0.00E+00	2.64E-04	4.56E-04	6.38E-05	1.51E-04	potential residence	0.00	2027
564390_418327C	564390	4183270	1.76E-04	1.64E-04	1.62E-04	0.00E+00	2.78E-04	4.79E-04	6.72E-05	1.59E-04	potential residence	0.00	2027
564410_418327C	564410	4183270	1.86E-04	1.73E-04	1.70E-04	0.00E+00	2.91E-04	5.03E-04	7.04E-05	1.67E-04	potential residence	0.00	2027
564430_418327C	564430	4183270	1.96E-04	1.82E-04	1.79E-04	0.00E+00	3.05E-04	5.26E-04	7.38E-05	1.75E-04	potential residence	0.00	2027
564450_418327C	564450	4183270	2.06E-04	1.91E-04	1.88E-04	0.00E+00	3.18E-04	5.49E-04	7.70E-05	1.82E-04	potential residence	0.00	2027
564470_418327C	564470	4183270	2.16E-04	2.01E-04	1.98E-04	0.00E+00	3.32E-04	5.74E-04	8.05E-05	1.91E-04	potential residence	0.00	2027
564490_418327C	564490	4183270	2.27E-04	2.11E-04	2.08E-04	0.00E+00	3.47E-04	5.99E-04	8.40E-05	1.99E-04	potential residence	0.00	2027
564510_418327C	564510	4183270	2.38E-04	2.21E-04	2.18E-04	0.00E+00	3.63E-04	6.26E-04	8.78E-05	2.08E-04	potential residence	0.00	2027
564530_418327C	564530	4183270	2.48E-04	2.30E-04	2.27E-04	0.00E+00	3.77E-04	6.51E-04	9.13E-05	2.16E-04	potential residence	0.00	2027
564550_418327C	564550	4183270	2.58E-04	2.40E-04	2.37E-04	0.00E+00	3.96E-04	6.85E-04	9.60E-05	2.27E-04	potential residence	0.00	2027
564570_418327C	564570	4183270	2.69E-04	2.50E-04	2.46E-04	0.00E+00	4.19E-04	7.24E-04	1.01E-04	2.40E-04	potential residence	0.00	2027
564590_418327C	564590	4183270	2.80E-04	2.61E-04	2.57E-04	0.00E+00	4.46E-04	7.69E-04	1.08E-04	2.56E-04	potential residence	0.00	2027
564610_418327C	564610	4183270	2.90E-04	2.70E-04	2.66E-04	0.00E+00	4.73E-04	8.17E-04	1.14E-04	2.71E-04	potential residence	0.00	2027
564310_418329C	564310	4183290	1.50E-04	1.39E-04	1.37E-04	0.00E+00	2.41E-04	4.16E-04	5.83E-05	1.38E-04	potential residence	0.00	2027
564330_418329C	564330	4183290	1.58E-04	1.47E-04	1.45E-04	0.00E+00	2.56E-04	4.43E-04	6.21E-05	1.47E-04	potential residence	0.00	2027
564350_418329C	564350	4183290	1.67E-04	1.56E-04	1.53E-04	0.00E+00	2.73E-04	4.71E-04	6.60E-05	1.56E-04	potential residence	0.00	2027
564370_418329C	564370	4183290	1.77E-04	1.65E-04	1.62E-04	0.00E+00	2.89E-04	4.99E-04	7.00E-05	1.66E-04	potential residence	0.00	2027
564390_418329C	564390	4183290	1.87E-04	1.74E-04	1.71E-04	0.00E+00	3.06E-04	5.28E-04	7.40E-05	1.75E-04	potential residence	0.00	2027
564410_418329C	564410	4183290	1.98E-04	1.84E-04	1.81E-04	0.00E+00	3.23E-04	5.58E-04	7.82E-05	1.85E-04	potential residence	0.00	2027
564430_418329C	564430	4183290	2.10E-04	1.95E-04	1.92E-04	0.00E+00	3.40E-04	5.87E-04	8.24E-05	1.95E-04	potential residence	0.00	2027
564450_418329C	564450	4183290	2.23E-04	2.07E-04	2.03E-04	0.00E+00	3.59E-04	6.20E-04	8.69E-05	2.06E-04	potential residence	0.00	2027
564470_418329C	564470	4183290	2.35E-04	2.18E-04	2.15E-04	0.00E+00	3.76E-04	6.49E-04	9.10E-05	2.15E-04	potential residence	0.00	2027
564490_418329C	564490	4183290	2.48E-04	2.30E-04	2.27E-04	0.00E+00	3.94E-04	6.80E-04	9.54E-05	2.26E-04	potential residence	0.00	2027
564510_418329C	564510	4183290	2.61E-04	2.43E-04	2.39E-04	0.00E+00	4.13E-04	7.13E-04	1.00E-04	2.37E-04	potential residence	0.00	2027
564530_418329C	564530	4183290	2.73E-04	2.54E-04	2.50E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence	0.00	2027
564550_418329C	564550	4183290	2.86E-04	2.66E-04	2.61E-04	0.00E+00	4.52E-04	7.81E-04	1.10E-04	2.60E-04	potential residence	0.00	2027
564570_418329C	564570	4183290	2.99E-04	2.78E-04	2.74E-04	0.00E+00	4.80E-04	8.29E-04	1.16E-04	2.75E-04	potential residence	0.00	2027
564290_418331C	564290	4183310	1.47E-04	1.36E-04	1.34E-04	0.00E+00	2.41E-04	4.16E-04	5.83E-05	1.38E-04	potential residence	0.00	2027
564310_418331C	564310	4183310	1.56E-04	1.45E-04	1.42E-04	0.00E+00	2.58E-04	4.46E-04	6.25E-05	1.48E-04	potential residence	0.00	2027
564330_418331C	564330	4183310	1.66E-04	1.54E-04	1.51E-04	0.00E+00	2.77E-04	4.78E-04	6.70E-05	1.59E-04	potential residence	0.00	2027
564350_418331C	564350	4183310	1.76E-04	1.63E-04	1.61E-04	0.00E+00	2.96E-04	5.11E-04	7.17E-05	1.70E-04	potential residence	0.00	2027
564370_418331C	564370	4183310	1.87E-04	1.73E-04	1.71E-04	0.00E+00	3.17E-04	5.47E-04	7.67E-05	1.82E-04	potential residence	0.00	2027
564390_418331C	564390	4183310	1.99E-04	1.84E-04	1.82E-04	0.00E+00	3.38E-04	5.84E-04	8.19E-05	1.94E-04	potential residence	0.00	2027
564410_418331C	564410	4183310	2.12E-04	1.96E-04	1.93E-04	0.00E+00	3.60E-04	6.22E-04	8.73E-05	2.07E-04	potential residence	0.00	2027
564430_418331C	564430	4183310	2.25E-04	2.09E-04	2.05E-04	0.00E+00	3.82E-04	6.60E-04	9.26E-05	2.19E-04	potential residence	0.00	2027
564450_418331C	564450	4183310	2.40E-04	2.22E-04	2.19E-04	0.00E+00	4.06E-04	7.00E-04	9.83E-05	2.33E-04	potential residence	0.00	2027
564470_418331C	564470	4183310	2.55E-04	2.36E-04	2.33E-04	0.00E+00	4.28E-04	7.40E-04	1.04E-04	2.46E-04	potential residence	0.00	2027
564490_418331C	564490	4183310	2.70E-04	2.50E-04	2.47E-04	0.00E+00	4.50E-04	7.77E-04	1.09E-04	2.58E-04	potential residence	0.00	2027
564510_418331C	564510	4183310	2.86E-04	2.65E-04	2.61E-04	0.00E+00	4.72E-04	8.15E-04	1.14E-04	2.71E-04	potential residence	0.00	2027
564530_418331C	564530	4183310	3.01E-04	2.80E-04	2.75E-04	0.00E+00	4.95E-04	8.54E-04	1.20E-04	2.84E-04	potential residence	0.00	2027
564290_418333C	564290	4183330	1.53E-04	1.41E-04	1.39E-04	0.00E+00	2.56E-04	4.41E-04	6.20E-05	1.47E-04	potential residence	0.00	2027
564310_418333C	564310	4183330	1.63E-04	1.50E-04	1.48E-04	0.00E+00	2.76E-04	4.76E-04	6.69E-05	1.58E-04	potential residence	0.00	2027
564330_418333C	564330	4183330	1.73E-04	1.60E-04	1.57E-04	0.00E+00	2.98E-04	5.14E-04	7.21E-05	1.71E-04	potential residence	0.00	2027
564350_418333C	564350	4183330	1.85E-04	1.71E-04	1.68E-04	0.00E+00	3.22E-04	5.55E-04	7.80E-05	1.84E-04	potential residence	0.00	2027
564370_418333C	564370	4183330	1.98E-04	1.82E-04	1.79E-04	0.00E+00	3.47E-04	6.00E-04	8.42E-05	1.99E-04	potential residence	0.00	2027
564390_418333C	564390	4183330	2.11E-04	1.95E-04	1.92E-04	0.00E+00	3.74E-04	6.46E-04	9.07E-05	2.15E-04	potential residence	0.00	2027
564410_418333C	564410	4183330	2.26E-04	2.08E-04	2.05E-04	0.00E+00	4.02E-04	6.95E-04	9.76E-05	2.31E-04	potential residence	0.00	2027
564430_418333C	564430	4183330	2.42E-04	2.23E-04	2.19E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence	0.00	2027
564450_418333C	564450	4183330	2.59E-04	2.38E-04	2.35E-04	0.00E+00	4.61E-04	7.96E-04	1.12E-04	2.64E-04	potential residence	0.00	2027
564470_418333C	564470	4183330	2.77E-04	2.55E-04	2.51E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	potential residence	0.00	2027
564490_418333C	564490	4183330	2.95E-04	2.72E-04	2.68E-04	0.00E+00	5.18E-04	8.95E-04	1.26E-04	2.97E-04	potential residence	0.00	2027
564270_418335C	564270	4183350	1.49E-04	1.36E-04	1.34E-04	0.00E+00	2.49E-04	4.30E-04	6.04E-05	1.43E-04	potential residence	0.00	2027
564290_418335C	564290	4183350	1.58E-04	1.45E-04	1.43E-04	0.00E+00	2.70E-04	4.66E-04	6.55E-05	1.55E-04	potential residence	0.00	2027
564310_418335C	564310	4183350	1.69E-04	1.55E-04	1.53E-04	0.00E+00	2.93E-04	5.06E-04	7.11E-05	1.68E-04	potential residence	0.00	2027
564330_418335C	564330	4183350	1.81E-04	1.66E-04	1.63E-04	0.00E+00	3.19E-04	5.51E-04	7.75E-05	1.83E-04	potential residence	0.00	2027
564350_418335C	564350	4183350	1.94E-04	1.78E-04	1.75E-04	0.00E+00	3.48E-04	6.01E-04	8.45E-05	2.00E-04	potential residence	0.00	2027
564370_418335C	564370	4183350	2.09E-04	1.91E-04	1.88E-04	0.00E+00	3.79E-04	6.55E-04	9.21E-05	2.18E-04	potential residence	0.00	2027
564390_418335C	564390	4183350	2.24E-04	2.05E-04	2.02E-04	0.00E+00	4.13E-04	7.14E-04	1.00E-04	2.37E-04	potential residence	0.00	2027
564410_418335C	564410	4183350	2.41E-04	2.20E-04	2.17E-04	0.00E+00	4.50E-04	7.77E-04	1.09E-04	2.58E-04	potential residence	0.00	2027
564430_418335C	564430	4183350	2.59E-04	2.37E-04	2.34E-04	0.00E+00	4.87E-04	8.42E-04	1.18E-04	2.80E-04	potential residence	0.00	2027
564450_418335C	564450	4183350	2.79E-04	2.55E-04	2.51E-04	0.00E+00	5.26E-04	9.08E-04	1.28E-04	3.02E-04	potential residence	0.00	2027
564270_418337C	564270	4183370	1.54E-04	1.40E-04	1.38E-04	0.00E+00	2.60E-04	4.49E-04	6.33E-05	1.49E-04	potential residence	0.00	2027
564290_418337C	564290	4183370	1.65E-04	1.50E-04	1.47E-04	0.00E+00	2.84E-04	4.91E-04	6.91E-05	1.63E-04	potential residence	0.00	2027
564310_418337C	564310	4183370	1.76E-04	1.60E-04	1.58E-04	0.00E+00	3.10E-04	5.36E-04	7.56E-05	1.78E-04	potential residence	0.00	2027
564330_418337C	564330	4183370	1.90E-04	1.72E-04	1.69E-04	0.00E+00	3.40E-04	5.88E-04	8.28E-05	1.95E-04	potential residence	0.00	2027
564350_418337C	564350	4183370	2.04E-04	1.85E-04	1.82E-04	0.00E+00	3.74E-04	6.47E-04	9.11E-05	2.15E-04	potential residence	0.00	2027
564370_418337C	564370	4183370	2.20E-04	1.99E-04	1.96E-04	0.00E+00	4.12E-04	7.13E-04	1.00E-04	2.37E-04	potential residence	0.00	2027
564390_418337C	564390	4183370	2.38E-04	2.15E-04	2.12E-04	0.00E+00	4.55E-04	7.86E-04	1.11E-04	2.61E-04	potential residence	0.00	2027
564410_418337C	564410	4183370	2.57E-04	2.32E-04	2.29E-04	0.00E+00	5.00E-04	8.65E-04	1.22E-04	2.87E-04	potential residence	0.00	2027
564250_418339C	564250	4183390	1.48E-04	1.34E-04	1.32E-04	0.00E+00	2.47E-04	4.27E-04	6.03E-05	1.42E-04	potential residence	0.00	2027
564270_418339C	564270	4183390	1.59E-04	1.43E-04	1.41E-04	0.00E+00	2.70E-04	4.67E-04	6.60E-05	1.55E-04	potential residence	0.00	2027
564290_418339C	564290	4183390	1.71E-04	1.54E-04	1.51E-04	0.00E+00	2.97E-04	5.14E-04	7.26E-05	1.70E-04	potential residence	0.00	2027
564310_418339C	564310	4183390	1.84E-04	1.65E-04	1.63E-04	0.00E+00	3.27E-04	5.66E-04	7.99E-05	1.88E-04	potential residence	0.00	2027
564330_418339C	564330	4183390	1.99E-04	1.78E-04	1.75E-04	0.00E+00	3.61E-04	6.24E-04	8.81E-05	2.07E-04	potential residence	0.00	2027
564350_418339C	564350	4183390	2.15E-04	1.92E-04	1.89E-04	0.00E+00	4.01E-04	6.93E-04	9.79E-05	2.30E-04	potential residence	0.00	2027
564370_418339C	564370	4183390	2.33E-04	2.08E-04	2.05E-04	0.00E+00	4.46E-04	7.71E-04	1.09E-04	2.56E-04	potential residence	0.00	2027
564690_418339C	564690	4183390	8.64E-04	8.00E-04	7.88E-04	0.00E+00	2.54E-03	4.38E-03	6.11E-04	1.46E-03	potential residence	0.00	2027
564710_418339C	564710	4183390	9.40E-04	8.67E-04	8.54E-04	0.00E+00	2.76E-03	4.77E-03	6.66E-04	1.59E-03	potential residence	0.00	2027
564250_418341C	564250	4183410	1.53E-04	1.37E-04	1.34E-04	0.00E+00	2.54E-04	4.40E-04	6.23E-05	1.46E-04	potential residence	0.00	2027
564270_418341C	564270	4183410	1.65E-04	1.47E-04	1.44E-04	0.00E+00	2.80E-04	4.84E-04	6.85E-05	1.60E-04	potential residence	0.00	2027
564290_418341C	564290	4183410	1.79E-04	1.58E-04	1.55E-04	0.00E+00	3.09E-04	5.34E-04	7.57E-05	1.77E-04	potential residence	0.00	2027
564310_418341C	564310	4183410	1.94E-04	1.70E-04	1.68E-04	0.00E+00	3.42E-04	5.92E-04	8.41E-05	1.96E-04	potential residence	0.00	2027
564330_418341C	564330	4183410	2.11E-04	1.84E-04	1.82E-04	0.00E+00	3.81E-04	6.59E-04	9.36E-05	2.18E-04	potential residence	0.00	2027
564570_418341C	564570	4183410	6.00E-04	5.57E-04	5.48E-04	0.00E+00	1.57E-03	2.71E-03	3.78E-04	9.01E-04	potential residence	0.00	2027
564590_418341C	564590	4183410	6.66E-04	6.19E-04	6.09E-04	0.00E+00	1.77E-03	3.05E-03	4.25E-04	1.01E-03	potential residence	0.00	2027
564690_418341C	564690	4183410	1.07E-03	9.87E-04	9.72E-04	0.00E+00	3.59E-03	6.20E-03	8.66E-04	2.06E-03	potential residence	0.01	2027
564710_418341C	564710	4183410	1.19E-03	1.08E-03	1.07E-03	0.00E+00	3.78E-03	6.52E-03	9.13E-04	2.17E-03	potential residence	0.01	2027
564230_418343C	564230	4183430	1.47E-04	1.30E-04	1.28E-04	0.00E+00	2.37E-04	4.10E-04	5.83E-05	1.36E-04	potential residence	0.00	2027
564250_418343C	564250	4183430	1.59E-04	1.39E-04	1.37E-04	0.00E+00	2.60E-04	4.51E-04	6.41E-05	1.49E-04	potential residence	0.00	2027
564270_418343C	564270	4183430	1.73E-04	1.50E-04	1.48E-04	0.00E+00	2.87E-04	4.98E-04	7.09E-05	1.65E-04	potential residence	0.00	2027
564290_418343C	564290	4183430	1.89E-04	1.63E-04	1.60E-04	0.00E+00	3.19E-04	5.53E-04	7.89E-05	1.83E-04	potential residence	0.00	2027
564550_418343C	564550	4183430	5.95E-04	5.48E-04	5.40E-04	0.00E+00	1.85E-03	3.20E-03	4.47E-04	1.06E-03	potential residence	0.00	2027
564570_418343C	564570	4183430	6.72E-04	6.21E-04	6.11E-04	0.00E+00	2.13E-03	3.67E-03	5.12E-04	1.22E-03	potential residence	0.00	2027
564590_418343C	564590	4183430	7.60E-04	7.03E-04	6.92E-04	0.00E+00	2.48E-03	4.28E-03	5.97E-04	1.42E-03	potential residence	0.00	2027
564630_418343C	564630	4183430	9.68E-04	8.94E-04	8.80E-04	0.00E+00	3.49E-03	6.02E-03	8.40E-04	2.00E-03	potential residence	0.01	2027
564650_418343C	564650	4183430	1.09E-03	9.99E-04	9.84E-04	0.00E+00	4.17E-03	7.19E-03	1.00E-03	2.39E-03	potential residence	0.01	2027
564730_418343C	564730	4183430	1.73E-03	1.56E-03	1.54E-03	0.00E+00	4.94E-03	8.53E-03	1.20E-03	2.83E-03	potential residence	0.01	2027
564230_418345C	564230	4183450	1.54E-04	1.32E-04	1.30E-04	0.00E+00	2.41E-04	4.17E-04	5.97E-05	1.38E-04	potential residence	0.00	2027
564250_418345C	564250	4183450	1.68E-04	1.43E-04	1.41E-04	0.00E+00	2.66E-04	4.61E-04	6.60E-05	1.52E-04	potential residence	0.00	2027
564570_418345C	564570	4183450	7.45E-04	6.83E-04	6.73E-04	0.00E+00	2.98E-03	5.15E-03	7.18E-04	1.71E-03	potential residence	0.01	2027
564590_418345C	564590	4183450	8.62E-04	7.90E-04	7.78E-04	0.00E+00	3.64E-03	6.28E-03	8.77E-04	2.09E-03	potential residence	0.01	2027
564610_418345C	564610	4183450	1.00E-03	9.19E-04	9.05E-04	0.00E+00	4.50E-03	7.76E-03	1.08E-03	2.58E-03	potential residence	0.01	2027
564690_418345C	564690	4183450	1.76E-03	1.60E-03	1.57E-03	0.00E+00	7.49E-03	1.29E-02	1.80E-03	4.30E-03	potential residence	0.01	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
564710_418345C	564710	4183450	1.95E-03	1.80E-03	1.77E-03	0.00E+00	6.90E-03	1.19E-02	1.66E-03	3.96E-03	potential residence	0.01	2027
564730_418345C	564730	4183450	2.22E-03	2.06E-03	2.03E-03	0.00E+00	6.17E-03	1.06E-02	1.48E-03	3.54E-03	potential residence	0.01	2027
564450_418347C	564450	4183470	4.04E-04	3.44E-04	3.39E-04	0.00E+00	1.08E-03	1.86E-03	2.64E-04	6.17E-04	potential residence	0.00	2027
564470_418347C	564470	4183470	4.34E-04	3.79E-04	3.73E-04	0.00E+00	1.32E-03	2.28E-03	3.21E-04	7.58E-04	potential residence	0.00	2027
564490_418347C	564490	4183470	4.78E-04	4.24E-04	4.17E-04	0.00E+00	1.66E-03	2.87E-03	4.02E-04	9.52E-04	potential residence	0.00	2027
564530_418347C	564530	4183470	6.08E-04	5.49E-04	5.40E-04	0.00E+00	2.65E-03	4.57E-03	6.39E-04	1.52E-03	potential residence	0.00	2027
564550_418347C	564550	4183470	7.02E-04	6.35E-04	6.25E-04	0.00E+00	3.35E-03	5.79E-03	8.08E-04	1.92E-03	potential residence	0.01	2027
564570_418347C	564570	4183470	8.24E-04	7.45E-04	7.33E-04	0.00E+00	4.36E-03	7.52E-03	1.05E-03	2.50E-03	potential residence	0.01	2027
564590_418347C	564590	4183470	9.89E-04	8.87E-04	8.74E-04	0.00E+00	5.86E-03	1.01E-02	1.41E-03	3.36E-03	potential residence	0.01	2027
564650_418347C	564650	4183470	1.66E-03	1.51E-03	1.48E-03	0.00E+00	1.24E-02	2.13E-02	2.97E-03	7.09E-03	potential residence	0.02	2027
564670_418347C	564670	4183470	1.90E-03	1.75E-03	1.73E-03	0.00E+00	1.18E-02	2.04E-02	2.84E-03	6.79E-03	potential residence	0.02	2027
564690_418347C	564690	4183470	2.21E-03	2.06E-03	2.03E-03	0.00E+00	1.04E-02	1.80E-02	2.51E-03	5.99E-03	potential residence	0.02	2027
564710_418347C	564710	4183470	2.60E-03	2.44E-03	2.41E-03	0.00E+00	8.87E-03	1.53E-02	2.13E-03	5.09E-03	potential residence	0.02	2027
564730_418347C	564730	4183470	3.12E-03	2.95E-03	2.90E-03	0.00E+00	7.45E-03	1.29E-02	1.79E-03	4.28E-03	potential residence	0.01	2027
564750_418347C	564750	4183470	3.85E-03	3.64E-03	3.58E-03	0.00E+00	6.28E-03	1.08E-02	1.51E-03	3.60E-03	potential residence	0.01	2027
564410_418349C	564410	4183490	3.96E-04	3.04E-04	2.99E-04	0.00E+00	7.82E-04	1.36E-03	1.97E-04	4.47E-04	potential residence	0.00	2027
564430_418349C	564430	4183490	3.96E-04	3.22E-04	3.17E-04	0.00E+00	9.26E-04	1.61E-03	2.30E-04	5.30E-04	potential residence	0.00	2027
564450_418349C	564450	4183490	4.15E-04	3.50E-04	3.44E-04	0.00E+00	1.13E-03	1.96E-03	2.78E-04	6.49E-04	potential residence	0.00	2027
564470_418349C	564470	4183490	4.47E-04	3.87E-04	3.81E-04	0.00E+00	1.43E-03	2.47E-03	3.47E-04	8.18E-04	potential residence	0.00	2027
564490_418349C	564490	4183490	4.95E-04	4.35E-04	4.28E-04	0.00E+00	1.86E-03	3.21E-03	4.50E-04	1.07E-03	potential residence	0.00	2027
564530_418349C	564530	4183490	6.51E-04	5.76E-04	5.67E-04	0.00E+00	3.43E-03	5.92E-03	8.27E-04	1.97E-03	potential residence	0.01	2027
564550_418349C	564550	4183490	7.74E-04	6.79E-04	6.69E-04	0.00E+00	4.72E-03	8.14E-03	1.14E-03	2.71E-03	potential residence	0.01	2027
564610_418349C	564610	4183490	1.34E-03	1.20E-03	1.18E-03	0.00E+00	5.11E-05	1.02E-04	2.49E-05	2.67E-05	Omit	0.00	NA
564630_418349C	564630	4183490	1.61E-03	1.47E-03	1.45E-03	0.00E+00	4.13E-05	8.29E-05	2.01E-05	2.16E-05	Omit	0.00	NA
564650_418349C	564650	4183490	1.93E-03	1.80E-03	1.77E-03	0.00E+00	2.00E-02	3.45E-02	4.80E-03	1.15E-02	potential residence	0.03	2027
564670_418349C	564670	4183490	2.36E-03	2.21E-03	2.18E-03	0.00E+00	1.70E-02	2.93E-02	4.07E-03	9.75E-03	potential residence	0.03	2027
564690_418349C	564690	4183490	2.92E-03	2.76E-03	2.72E-03	0.00E+00	1.36E-02	2.35E-02	3.27E-03	7.83E-03	potential residence	0.02	2027
564710_418349C	564710	4183490	3.71E-03	3.52E-03	3.46E-03	0.00E+00	1.08E-02	1.86E-02	2.59E-03	6.20E-03	potential residence	0.02	2027
564730_418349C	564730	4183490	4.87E-03	4.63E-03	4.56E-03	0.00E+00	8.58E-03	1.48E-02	2.06E-03	4.93E-03	potential residence	0.01	2027
564750_418349C	564750	4183490	6.51E-03	6.18E-03	6.09E-03	0.00E+00	6.97E-03	1.20E-02	1.68E-03	4.00E-03	potential residence	0.01	2027
564370_418351C	564370	4183510	2.89E-04	2.36E-04	2.33E-04	0.00E+00	5.52E-04	9.57E-04	1.38E-04	3.16E-04	potential residence	0.00	2027
564410_418351C	564410	4183510	4.10E-04	3.08E-04	3.04E-04	0.00E+00	7.88E-04	1.37E-03	2.00E-04	4.50E-04	potential residence	0.00	2027
564430_418351C	564430	4183510	4.04E-04	3.24E-04	3.20E-04	0.00E+00	9.36E-04	1.62E-03	2.33E-04	5.36E-04	potential residence	0.00	2027
564450_418351C	564450	4183510	4.23E-04	3.52E-04	3.47E-04	0.00E+00	1.15E-03	2.00E-03	2.83E-04	6.61E-04	potential residence	0.00	2027
564470_418351C	564470	4183510	4.59E-04	3.91E-04	3.86E-04	0.00E+00	1.48E-03	2.55E-03	3.60E-04	8.47E-04	potential residence	0.00	2027
564490_418351C	564490	4183510	5.19E-04	4.45E-04	4.38E-04	0.00E+00	1.99E-03	3.44E-03	4.84E-04	1.14E-03	potential residence	0.00	2027
564510_418351C	564510	4183510	6.08E-04	5.17E-04	5.09E-04	0.00E+00	2.86E-03	4.94E-03	6.93E-04	1.64E-03	potential residence	0.00	2027
564550_418351C	564550	4183510	9.07E-04	7.39E-04	7.28E-04	0.00E+00	7.26E-05	1.46E-04	3.53E-05	3.80E-05	Omit	0.00	NA
564570_418351C	564570	4183510	9.82E-04	8.54E-04	8.41E-04	0.00E+00	5.02E-05	1.01E-04	2.44E-05	2.63E-05	Omit	0.00	NA
564590_418351C	564590	4183510	1.14E-03	1.03E-03	1.01E-03	0.00E+00	4.03E-05	8.09E-05	1.96E-05	2.11E-05	Omit	0.00	NA
564610_418351C	564610	4183510	1.40E-03	1.29E-03	1.27E-03	0.00E+00	3.43E-05	6.88E-05	1.67E-05	1.80E-05	Omit	0.00	NA
564630_418351C	564630	4183510	1.76E-03	1.64E-03	1.61E-03	0.00E+00	3.15E-05	6.32E-05	1.53E-05	1.65E-05	Omit	0.00	NA
564650_418351C	564650	4183510	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00	NA
564710_418351C	564710	4183510	5.81E-03	5.52E-03	5.43E-03	0.00E+00	1.19E-02	2.05E-02	2.86E-03	6.83E-03	potential residence	0.02	2027
564750_418351C	564750	4183510	1.84E-04	6.55E-05	6.49E-05	0.00E+00	7.27E-03	1.25E-02	1.75E-03	4.17E-03	Block1	0.01	2027
564770_418351C	564770	4183510	1.36E-04	4.86E-05	4.81E-05	0.00E+00	5.88E-03	1.01E-02	1.42E-03	3.38E-03	Block1	0.01	2027
564330_418353C	564330	4183530	2.32E-04	1.93E-04	1.90E-04	0.00E+00	4.07E-04	7.06E-04	1.01E-04	2.33E-04	potential residence	0.00	2027
564350_418353C	564350	4183530	2.48E-04	2.09E-04	2.06E-04	0.00E+00	4.63E-04	8.02E-04	1.15E-04	2.65E-04	potential residence	0.00	2027
564370_418353C	564370	4183530	2.71E-04	2.28E-04	2.25E-04	0.00E+00	5.35E-04	9.26E-04	1.32E-04	3.06E-04	potential residence	0.00	2027
564390_418353C	564390	4183530	3.09E-04	2.55E-04	2.51E-04	0.00E+00	6.31E-04	1.09E-03	1.57E-04	3.61E-04	potential residence	0.00	2027
564430_418353C	564430	4183530	4.14E-04	3.26E-04	3.21E-04	0.00E+00	9.23E-04	1.60E-03	2.30E-04	5.28E-04	potential residence	0.00	2027
564450_418353C	564450	4183530	4.35E-04	3.55E-04	3.50E-04	0.00E+00	1.14E-03	1.98E-03	2.82E-04	6.54E-04	potential residence	0.00	2027
564470_418353C	564470	4183530	4.92E-04	4.02E-04	3.96E-04	0.00E+00	1.48E-03	2.57E-03	3.64E-04	8.50E-04	potential residence	0.00	2027
564510_418353C	564510	4183530	7.11E-04	5.53E-04	5.45E-04	0.00E+00	2.98E-03	5.16E-03	7.31E-04	1.71E-03	potential residence	0.01	2027
564550_418353C	564550	4183530	8.11E-04	7.09E-04	6.99E-04	0.00E+00	3.88E-05	7.78E-05	1.89E-05	2.03E-05	Omit	0.00	NA
564570_418353C	564570	4183530	9.47E-04	8.53E-04	8.40E-04	0.00E+00	3.23E-05	6.49E-05	1.57E-05	1.69E-05	Omit	0.00	NA
564590_418353C	564590	4183530	1.14E-03	1.05E-03	1.03E-03	0.00E+00	2.95E-05	5.93E-05	1.44E-05	1.55E-05	Omit	0.00	NA
564610_418353C	564610	4183530	1.43E-03	1.32E-03	1.30E-03	0.00E+00	2.87E-05	5.77E-05	1.40E-05	1.50E-05	Omit	0.00	NA
564630_418353C	564630	4183530	1.84E-03	1.72E-03	1.69E-03	0.00E+00	2.95E-05	5.91E-05	1.43E-05	1.54E-05	Omit	0.00	NA
564650_418353C	564650	4183530	2.57E-03	2.41E-03	2.38E-03	0.00E+00	3.45E-05	6.92E-05	1.68E-05	1.80E-05	Omit	0.00	NA
564710_418353C	564710	4183530	1.77E-04	6.30E-05	6.24E-05	0.00E+00	1.13E-02	1.95E-02	2.72E-03	6.49E-03	Block1	0.02	2027
564730_418353C	564730	4183530	1.32E-04	4.70E-05	4.66E-05	0.00E+00	8.72E-03	1.50E-02	2.10E-03	5.01E-03	Block1	0.02	2027
564750_418353C	564750	4183530	1.05E-04	3.73E-05	3.70E-05	0.00E+00	6.90E-03	1.19E-02	1.66E-03	3.96E-03	Omit	0.00	NA
564770_418353C	564770	4183530	8.60E-05	3.06E-05	3.04E-05	0.00E+00	5.60E-03	9.66E-03	1.35E-03	3.21E-03	Omit	0.00	NA
564790_418353C	564790	4183530	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	Omit	0.00	NA
564290_418355C	564290	4183550	1.97E-04	1.63E-04	1.61E-04	0.00E+00	3.13E-04	5.44E-04	7.85E-05	1.79E-04	potential residence	0.00	2027
564310_418355C	564310	4183550	2.06E-04	1.74E-04	1.71E-04	0.00E+00	3.48E-04	6.03E-04	8.65E-05	1.99E-04	potential residence	0.00	2027
564330_418355C	564330	4183550	2.18E-04	1.86E-04	1.84E-04	0.00E+00	3.91E-04	6.78E-04	9.67E-05	2.24E-04	potential residence	0.00	2027
564350_418355C	564350	4183550	2.34E-04	2.02E-04	1.99E-04	0.00E+00	4.45E-04	7.70E-04	1.10E-04	2.55E-04	potential residence	0.00	2027
564370_418355C	564370	4183550	2.55E-04	2.20E-04	2.17E-04	0.00E+00	5.13E-04	8.88E-04	1.26E-04	2.94E-04	potential residence	0.00	2027
564390_418355C	564390	4183550	2.86E-04	2.44E-04	2.41E-04	0.00E+00	6.03E-04	1.04E-03	1.48E-04	3.45E-04	potential residence	0.00	2027
564430_418355C	564430	4183550	4.31E-04	3.29E-04	3.24E-04	0.00E+00	8.96E-04	1.56E-03	2.26E-04	5.13E-04	potential residence	0.00	2027
564470_418355C	564470	4183550	5.73E-04	4.27E-04	4.21E-04	0.00E+00	1.45E-03	2.52E-03	3.63E-04	8.29E-04	potential residence	0.00	2027
564490_418355C	564490	4183550	5.56E-04	4.53E-04	4.46E-04	0.00E+00	1.92E-03	3.32E-03	4.71E-04	1.10E-03	potential residence	0.00	2027
564510_418355C	564510	4183550	5.90E-04	5.04E-04	4.96E-04	0.00E+00	2.77E-03	4.78E-03	6.71E-04	1.59E-03	potential residence	0.00	2027
564530_418355C	564530	4183550	6.58E-04	5.79E-04	5.70E-04	0.00E+00	4.41E-03	7.61E-03	1.06E-03	2.53E-03	potential residence	0.01	2027
564550_418355C	564550	4183550	7.55E-04	6.79E-04	6.69E-04	0.00E+00	2.62E-05	5.25E-05	1.27E-05	1.37E-05	Omit	0.00	NA
564570_418355C	564570	4183550	9.04E-04	8.25E-04	8.12E-04	0.00E+00	2.53E-05	5.07E-05	1.23E-05	1.32E-05	Omit	0.00	NA
564590_418355C	564590	4183550	1.11E-03	1.02E-03	1.01E-03	0.00E+00	2.65E-05	5.32E-05	1.29E-05	1.39E-05	Omit	0.00	NA
564610_418355C	564610	4183550	1.41E-03	1.30E-03	1.28E-03	0.00E+00	3.13E-05	6.29E-05	1.52E-05	1.64E-05	Omit	0.00	NA
564630_418355C	564630	4183550	1.91E-03	1.76E-03	1.73E-03	0.00E+00	4.54E-05	9.10E-05	2.21E-05	2.38E-05	Omit	0.00	NA
564690_418355C	564690	4183550	1.25E-04	4.47E-05	4.43E-05	0.00E+00	1.15E-02	1.98E-02	2.75E-03	6.59E-03	Omit	0.00	NA
564710_418355C	564710	4183550	1.01E-04	3.60E-05	3.56E-05	0.00E+00	9.04E-03	1.56E-02	2.17E-03	5.19E-03	Block1	0.02	2027
564730_418355C	564730	4183550	8.47E-05	3.02E-05	2.99E-05	0.00E+00	7.30E-03	1.26E-02	1.75E-03	4.19E-03	Omit	0.00	NA
564750_418355C	564750	4183550	7.18E-05	2.56E-05	2.53E-05	0.00E+00	5.96E-03	1.03E-02	1.43E-03	3.42E-03	Block1	0.01	2027
564770_418355C	564770	4183550	6.18E-05	2.20E-05	2.18E-05	0.00E+00	4.95E-03	8.53E-03	1.19E-03	2.84E-03	Block1	0.01	2027
564790_418355C	564790	4183550	5.48E-05	1.95E-05	1.93E-05	0.00E+00	4.21E-03	7.27E-03	1.01E-03	2.42E-03	Block1	0.01	2027
564250_418357C	564250	4183570	1.70E-04	1.39E-04	1.37E-04	0.00E+00	2.48E-04	4.32E-04	6.27E-05	1.42E-04	potential residence	0.00	2027
564270_418357C	564270	4183570	1.76E-04	1.47E-04	1.45E-04	0.00E+00	2.72E-04	4.72E-04	6.79E-05	1.55E-04	potential residence	0.00	2027
564290_418357C	564290	4183570	1.84E-04	1.56E-04	1.54E-04	0.00E+00	3.00E-04	5.20E-04	7.45E-05	1.72E-04	potential residence	0.00	2027
564310_418357C	564310	4183570	1.94E-04	1.67E-04	1.65E-04	0.00E+00	3.34E-04	5.78E-04	8.24E-05	1.91E-04	potential residence	0.00	2027
564330_418357C	564330	4183570	2.06E-04	1.80E-04	1.77E-04	0.00E+00	3.75E-04	6.48E-04	9.21E-05	2.15E-04	potential residence	0.00	2027
564350_418357C	564350	4183570	2.22E-04	1.95E-04	1.92E-04	0.00E+00	4.26E-04	7.37E-04	1.04E-04	2.44E-04	potential residence	0.00	2027
564370_418357C	564370	4183570	2.42E-04	2.13E-04	2.10E-04	0.00E+00	4.90E-04	8.47E-04	1.20E-04	2.81E-04	potential residence	0.00	2027
564390_418357C	564390	4183570	2.68E-04	2.35E-04	2.31E-04	0.00E+00	5.73E-04	9.91E-04	1.40E-04	3.28E-04	potential residence	0.00	2027
564430_418357C	564430	4183570	3.84E-04	3.08E-04	3.04E-04	0.00E+00	8.40E-04	1.46E-03	2.09E-04	4.81E-04	potential residence	0.00	2027
564450_418357C	564450	4183570	4.14E-04	3.39E-04	3.34E-04	0.00E+00	1.03E-03	1.79E-03	2.55E-04	5.92E-04	potential residence	0.00	2027
564470_418357C	564470	4183570	4.40E-04	3.73E-04	3.67E-04	0.00E+00	1.31E-03	2.26E-03	3.19E-04	7.49E-04	potential residence	0.00	2027
564490_418357C	564490	4183570	4.78E-04	4.17E-04	4.10E-04	0.00E+00	1.73E-03	3.00E-03	4.21E-04	9.95E-04	potential residence	0.00	2027
564510_418357C	564510	4183570	5.33E-04	4.74E-04	4.67E-04	0.00E+00	2.43E-03	4.20E-03	5.88E-04	1.40E-03	potential residence	0.00	2027
564530_418357C	564530	4183570	6.08E-04	5.49E-04	5.41E-04	0.00E+00	3.61E-03	6.23E-03	8.68E-04	2.07E-03	potential residence	0.01	2027
564550_418357C	564550	4183570	7.13E-04	6.50E-04	6.40E-04	0.00E+00	5.79E-03	9.98E-03	1.39E-03	3.32E-03	potential residence	0.01	2027
564570_418357C	564570	4183570	8.60E-04	7.85E-04	7.73E-04	0.00E+00	2.38E-05	4.77E-05	1.16E-05	1.24E-05	Omit	0.00	NA
564590_418357C	564590	4183570	1.10E-03	9.87E-04	9.72E-04	0.00E+00	3.95E-05	7.93E-05	1.92E-05	2.07E-05	Omit	0.00	NA

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

			Mitigated								Receptor Type	$PM_{2.5}$ Concentration	
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564690_4183570	564690	4183570	7.83E-05	2.79E-05	2.76E-05	0.00E+00	7.58E-03	1.31E-02	1.82E-03	4.35E-03	Omit	0.00	NA
564710_4183570	564710	4183570	6.60E-05	2.35E-05	2.33E-05	0.00E+00	6.31E-03	1.09E-02	1.51E-03	3.62E-03	Omit	0.00	NA
564730_4183570	564730	4183570	5.91E-05	2.10E-05	2.08E-05	0.00E+00	5.46E-03	9.41E-03	1.31E-03	3.13E-03	Block1	0.01	2027
564750_4183570	564750	4183570	5.21E-05	1.86E-05	1.84E-05	0.00E+00	4.66E-03	8.03E-03	1.12E-03	2.67E-03	Block1	0.01	2027
564770_4183570	564770	4183570	4.66E-05	1.66E-05	1.64E-05	0.00E+00	4.02E-03	6.94E-03	9.66E-04	2.31E-03	Block1	0.01	2027
564230_4183590	564230	4183590	1.51E-04	1.26E-04	1.24E-04	0.00E+00	2.18E-04	3.78E-04	5.46E-05	1.24E-04	potential residence	0.00	2027
564250_4183590	564250	4183590	1.56E-04	1.33E-04	1.31E-04	0.00E+00	2.37E-04	4.11E-04	5.90E-05	1.35E-04	potential residence	0.00	2027
564270_4183590	564270	4183590	1.64E-04	1.41E-04	1.39E-04	0.00E+00	2.59E-04	4.50E-04	6.43E-05	1.49E-04	potential residence	0.00	2027
564290_4183590	564290	4183590	1.72E-04	1.50E-04	1.48E-04	0.00E+00	2.87E-04	4.96E-04	7.06E-05	1.64E-04	potential residence	0.00	2027
564310_4183590	564310	4183590	1.83E-04	1.61E-04	1.59E-04	0.00E+00	3.19E-04	5.52E-04	7.83E-05	1.83E-04	potential residence	0.00	2027
564330_4183590	564330	4183590	1.96E-04	1.73E-04	1.71E-04	0.00E+00	3.58E-04	6.19E-04	8.75E-05	2.05E-04	potential residence	0.00	2027
564350_4183590	564350	4183590	2.11E-04	1.88E-04	1.85E-04	0.00E+00	4.06E-04	7.01E-04	9.91E-05	2.33E-04	potential residence	0.00	2027
564370_4183590	564370	4183590	2.30E-04	2.05E-04	2.02E-04	0.00E+00	4.66E-04	8.05E-04	1.14E-04	2.67E-04	potential residence	0.00	2027
564390_4183590	564390	4183590	2.53E-04	2.25E-04	2.22E-04	0.00E+00	5.42E-04	9.37E-04	1.32E-04	3.11E-04	potential residence	0.00	2027
564410_4183590	564410	4183590	2.81E-04	2.49E-04	2.46E-04	0.00E+00	6.40E-04	1.11E-03	1.56E-04	3.67E-04	potential residence	0.00	2027
564430_4183590	564430	4183590	3.13E-04	2.78E-04	2.73E-04	0.00E+00	7.71E-04	1.33E-03	1.88E-04	4.42E-04	potential residence	0.00	2027
564450_4183590	564450	4183590	3.48E-04	3.10E-04	3.05E-04	0.00E+00	9.46E-04	1.63E-03	2.30E-04	5.43E-04	potential residence	0.00	2027
564470_4183590	564470	4183590	3.86E-04	3.46E-04	3.40E-04	0.00E+00	1.18E-03	2.05E-03	2.87E-04	6.80E-04	potential residence	0.00	2027
564490_4183590	564490	4183590	4.32E-04	3.91E-04	3.85E-04	0.00E+00	1.54E-03	2.66E-03	3.72E-04	8.84E-04	potential residence	0.00	2027
564510_4183590	564510	4183590	4.90E-04	4.47E-04	4.40E-04	0.00E+00	2.05E-03	3.54E-03	4.94E-04	1.18E-03	potential residence	0.00	2027
564530_4183590	564530	4183590	5.66E-04	5.20E-04	5.12E-04	0.00E+00	2.82E-03	4.86E-03	6.77E-04	1.62E-03	potential residence	0.00	2027
564710_4183590	564710	4183590	4.66E-05	1.66E-05	1.64E-05	0.00E+00	4.28E-03	7.38E-03	1.03E-03	2.46E-03	Omit	0.00	NA
564730_4183590	564730	4183590	4.26E-05	1.52E-05	1.50E-05	0.00E+00	3.84E-03	6.62E-03	9.22E-04	2.21E-03	Block1	0.01	2027
564230_4183610	564230	4183610	1.39E-04	1.20E-04	1.18E-04	0.00E+00	2.08E-04	3.60E-04	5.16E-05	1.19E-04	potential residence	0.00	2027
564250_4183610	564250	4183610	1.46E-04	1.27E-04	1.25E-04	0.00E+00	2.26E-04	3.92E-04	5.59E-05	1.30E-04	potential residence	0.00	2027
564270_4183610	564270	4183610	1.54E-04	1.35E-04	1.33E-04	0.00E+00	2.48E-04	4.29E-04	6.10E-05	1.42E-04	potential residence	0.00	2027
564290_4183610	564290	4183610	1.63E-04	1.45E-04	1.42E-04	0.00E+00	2.74E-04	4.74E-04	6.72E-05	1.57E-04	potential residence	0.00	2027
564310_4183610	564310	4183610	1.74E-04	1.55E-04	1.53E-04	0.00E+00	3.05E-04	5.27E-04	7.45E-05	1.75E-04	potential residence	0.00	2027
564330_4183610	564330	4183610	1.86E-04	1.67E-04	1.65E-04	0.00E+00	3.41E-04	5.90E-04	8.33E-05	1.96E-04	potential residence	0.00	2027
564350_4183610	564350	4183610	2.01E-04	1.81E-04	1.78E-04	0.00E+00	3.86E-04	6.68E-04	9.41E-05	2.22E-04	potential residence	0.00	2027
564370_4183610	564370	4183610	2.18E-04	1.97E-04	1.94E-04	0.00E+00	4.42E-04	7.63E-04	1.07E-04	2.53E-04	potential residence	0.00	2027
564390_4183610	564390	4183610	2.38E-04	2.16E-04	2.12E-04	0.00E+00	5.10E-04	8.81E-04	1.24E-04	2.93E-04	potential residence	0.00	2027
564410_4183610	564410	4183610	2.61E-04	2.37E-04	2.33E-04	0.00E+00	5.97E-04	1.03E-03	1.45E-04	3.43E-04	potential residence	0.00	2027
564430_4183610	564430	4183610	2.89E-04	2.63E-04	2.59E-04	0.00E+00	7.14E-04	1.23E-03	1.73E-04	4.10E-04	potential residence	0.00	2027
564450_4183610	564450	4183610	3.21E-04	2.93E-04	2.88E-04	0.00E+00	8.70E-04	1.50E-03	2.10E-04	4.99E-04	potential residence	0.00	2027
564470_4183610	564470	4183610	3.57E-04	3.27E-04	3.22E-04	0.00E+00	1.07E-03	1.85E-03	2.58E-04	6.14E-04	potential residence	0.00	2027
564490_4183610	564490	4183610	4.03E-04	3.71E-04	3.65E-04	0.00E+00	1.35E-03	2.33E-03	3.25E-04	7.74E-04	potential residence	0.00	2027
564510_4183610	564510	4183610	4.58E-04	4.24E-04	4.17E-04	0.00E+00	1.71E-03	2.95E-03	4.11E-04	9.82E-04	potential residence	0.00	2027
564750_4183610	564750	4183610	7.25E-03	6.98E-03	6.87E-03	0.00E+00	2.48E-03	4.28E-03	5.96E-04	1.42E-03	potential residence	0.01	2022
564770_4183610	564770	4183610	7.07E-03	6.80E-03	6.70E-03	0.00E+00	2.29E-03	3.95E-03	5.50E-04	1.31E-03	potential residence	0.01	2022
564830_4183610	564830	4183610	5.48E-03	5.28E-03	5.20E-03	0.00E+00	1.81E-03	3.13E-03	4.35E-04	1.04E-03	potential residence	0.01	2022
564250_4183630	564250	4183630	1.37E-04	1.22E-04	1.20E-04	0.00E+00	2.17E-04	3.75E-04	5.32E-05	1.24E-04	potential residence	0.00	2027
564270_4183630	564270	4183630	1.45E-04	1.30E-04	1.28E-04	0.00E+00	2.38E-04	4.11E-04	5.82E-05	1.36E-04	potential residence	0.00	2027
564290_4183630	564290	4183630	1.55E-04	1.39E-04	1.37E-04	0.00E+00	2.62E-04	4.54E-04	6.41E-05	1.50E-04	potential residence	0.00	2027
564310_4183630	564310	4183630	1.65E-04	1.50E-04	1.47E-04	0.00E+00	2.92E-04	5.04E-04	7.11E-05	1.67E-04	potential residence	0.00	2027
564330_4183630	564330	4183630	1.78E-04	1.61E-04	1.59E-04	0.00E+00	3.27E-04	5.64E-04	7.95E-05	1.87E-04	potential residence	0.00	2027
564350_4183630	564350	4183630	1.91E-04	1.74E-04	1.71E-04	0.00E+00	3.67E-04	6.34E-04	8.92E-05	2.11E-04	potential residence	0.00	2027
564370_4183630	564370	4183630	2.07E-04	1.89E-04	1.86E-04	0.00E+00	4.18E-04	7.22E-04	1.01E-04	2.40E-04	potential residence	0.00	2027
564390_4183630	564390	4183630	2.26E-04	2.07E-04	2.03E-04	0.00E+00	4.82E-04	8.33E-04	1.17E-04	2.77E-04	potential residence	0.00	2027
564410_4183630	564410	4183630	2.39E-04	2.19E-04	2.16E-04	0.00E+00	5.59E-04	9.66E-04	1.35E-04	3.21E-04	potential residence	0.00	2027
564430_4183630	564430	4183630	2.64E-04	2.42E-04	2.39E-04	0.00E+00	6.63E-04	1.14E-03	1.60E-04	3.80E-04	potential residence	0.00	2027
564450_4183630	564450	4183630	3.02E-04	2.79E-04	2.74E-04	0.00E+00	7.95E-04	1.37E-03	1.92E-04	4.56E-04	potential residence	0.00	2027
564470_4183630	564470	4183630	3.37E-04	3.12E-04	3.07E-04	0.00E+00	9.59E-04	1.66E-03	2.31E-04	5.51E-04	potential residence	0.00	2027
564690_4183630	564690	4183630	2.52E-03	2.42E-03	2.38E-03	0.00E+00	2.17E-03	3.74E-03	5.21E-04	1.25E-03	potential residence	0.00	2027
564750_4183630	564750	4183630	3.89E-03	3.74E-03	3.68E-03	0.00E+00	1.82E-03	3.13E-03	4.36E-04	1.04E-03	potential residence	0.00	2022
564770_4183630	564770	4183630	3.97E-03	3.82E-03	3.76E-03	0.00E+00	1.71E-03	2.95E-03	4.10E-04	9.80E-04	potential residence	0.00	2022
564790_4183630	564790	4183630	3.93E-03	3.78E-03	3.72E-03	0.00E+00	1.61E-03	2.78E-03	3.88E-04	9.26E-04	potential residence	0.00	2022
564810_4183630	564810	4183630	3.78E-03	3.63E-03	3.58E-03	0.00E+00	1.52E-03	2.63E-03	3.66E-04	8.74E-04	potential residence	0.00	2022
564830_4183630	564830	4183630	3.55E-03	3.42E-03	3.36E-03	0.00E+00	1.44E-03	2.48E-03	3.45E-04	8.24E-04	potential residence	0.00	2022
564890_4183630	564890	4183630	2.69E-03	2.58E-03	2.54E-03	0.00E+00	1.18E-03	2.04E-03	2.84E-04	6.78E-04	potential residence	0.00	2022
564910_4183630	564910	4183630	2.44E-03	2.35E-03	2.31E-03	0.00E+00	1.11E-03	1.91E-03	2.66E-04	6.36E-04	potential residence	0.00	2022
564250_4183650	564250	4183650	1.30E-04	1.18E-04	1.16E-04	0.00E+00	2.09E-04	3.61E-04	5.10E-05	1.20E-04	potential residence	0.00	2027
564270_4183650	564270	4183650	1.38E-04	1.26E-04	1.24E-04	0.00E+00	2.28E-04	3.95E-04	5.57E-05	1.31E-04	potential residence	0.00	2027
564290_4183650	564290	4183650	1.47E-04	1.34E-04	1.32E-04	0.00E+00	2.51E-04	4.35E-04	6.12E-05	1.44E-04	potential residence	0.00	2027
564310_4183650	564310	4183650	1.58E-04	1.44E-04	1.42E-04	0.00E+00	2.79E-04	4.82E-04	6.78E-05	1.60E-04	potential residence	0.00	2027
564330_4183650	564330	4183650	1.70E-04	1.55E-04	1.53E-04	0.00E+00	3.12E-04	5.40E-04	7.58E-05	1.79E-04	potential residence	0.00	2027
564350_4183650	564350	4183650	1.83E-04	1.68E-04	1.65E-04	0.00E+00	3.51E-04	6.06E-04	8.50E-05	2.01E-04	potential residence	0.00	2027
564370_4183650	564370	4183650	1.92E-04	1.76E-04	1.73E-04	0.00E+00	3.96E-04	6.84E-04	9.60E-05	2.27E-04	potential residence	0.00	2027
564390_4183650	564390	4183650	2.09E-04	1.92E-04	1.89E-04	0.00E+00	4.55E-04	7.86E-04	1.10E-04	2.61E-04	potential residence	0.00	2027
564410_4183650	564410	4183650	2.28E-04	2.11E-04	2.07E-04	0.00E+00	5.27E-04	9.10E-04	1.27E-04	3.02E-04	potential residence	0.00	2027
564430_4183650	564430	4183650	2.51E-04	2.32E-04	2.28E-04	0.00E+00	6.15E-04	1.06E-03	1.48E-04	3.53E-04	potential residence	0.00	2027
564450_4183650	564450	4183650	2.77E-04	2.57E-04	2.53E-04	0.00E+00	7.22E-04	1.25E-03	1.74E-04	4.14E-04	potential residence	0.00	2027
564670_4183650	564670	4183650	1.54E-03	1.48E-03	1.45E-03	0.00E+00	1.62E-03	2.79E-03	3.89E-04	9.30E-04	potential residence	0.00	2027
564690_4183650	564690	4183650	1.80E-03	1.73E-03	1.70E-03	0.00E+00	1.57E-03	2.71E-03	3.77E-04	9.01E-04	potential residence	0.00	2027
564710_4183650	564710	4183650	2.14E-03	2.05E-03	2.02E-03	0.00E+00	1.51E-03	2.61E-03	3.63E-04	8.68E-04	potential residence	0.00	2027
564730_4183650	564730	4183650	2.32E-03	2.23E-03	2.19E-03	0.00E+00	1.44E-03	2.48E-03	3.45E-04	8.26E-04	potential residence	0.00	2027
564750_4183650	564750	4183650	2.45E-03	2.35E-03	2.32E-03	0.00E+00	1.37E-03	2.36E-03	3.28E-04	7.84E-04	potential residence	0.00	2022
564770_4183650	564770	4183650	2.53E-03	2.43E-03	2.39E-03	0.00E+00	1.30E-03	2.25E-03	3.13E-04	7.49E-04	potential residence	0.00	2022
564790_4183650	564790	4183650	2.54E-03	2.44E-03	2.40E-03	0.00E+00	1.25E-03	2.15E-03	3.00E-04	7.16E-04	potential residence	0.00	2022
564810_4183650	564810	4183650	2.49E-03	2.39E-03	2.35E-03	0.00E+00	1.19E-03	2.05E-03	2.86E-04	6.84E-04	potential residence	0.00	2022
564830_4183650	564830	4183650	2.39E-03	2.30E-03	2.27E-03	0.00E+00	1.14E-03	1.96E-03	2.73E-04	6.52E-04	potential residence	0.00	2022
564850_4183650	564850	4183650	2.26E-03	2.17E-03	2.14E-03	0.00E+00	1.08E-03	1.86E-03	2.60E-04	6.20E-04	potential residence	0.00	2022
564870_4183650	564870	4183650	2.12E-03	2.04E-03	2.01E-03	0.00E+00	1.03E-03	1.77E-03	2.47E-04	5.90E-04	potential residence	0.00	2022
564890_4183650	564890	4183650	1.97E-03	1.89E-03	1.86E-03	0.00E+00	9.73E-04	1.68E-03	2.34E-04	5.59E-04	potential residence	0.00	2022
564910_4183650	564910	4183650	1.83E-03	1.76E-03	1.73E-03	0.00E+00	9.12E-04	1.57E-03	2.19E-04	5.24E-04	potential residence	0.00	2022
564270_4183670	564270	4183670	1.30E-04	1.18E-04	1.17E-04	0.00E+00	2.20E-04	3.79E-04	5.34E-05	1.26E-04	potential residence	0.00	2027
564290_4183670	564290	4183670	1.38E-04	1.26E-04	1.24E-04	0.00E+00	2.42E-04	4.17E-04	5.87E-05	1.39E-04	potential residence	0.00	2027
564310_4183670	564310	4183670	1.51E-04	1.39E-04	1.37E-04	0.00E+00	2.68E-04	4.63E-04	6.50E-05	1.54E-04	potential residence	0.00	2027
564330_4183670	564330	4183670	1.58E-04	1.46E-04	1.43E-04	0.00E+00	2.98E-04	5.15E-04	7.23E-05	1.71E-04	potential residence	0.00	2027
564350_4183670	564350	4183670	1.70E-04	1.57E-04	1.55E-04	0.00E+00	3.35E-04	5.78E-04	8.11E-05	1.92E-04	potential residence	0.00	2027
564370_4183670	564370	4183670	1.84E-04	1.70E-04	1.67E-04	0.00E+00	3.78E-04	6.52E-04	9.13E-05	2.17E-04	potential residence	0.00	2027
564390_4183670	564390	4183670	2.00E-04	1.85E-04	1.82E-04	0.00E+00	4.30E-04	7.43E-04	1.04E-04	2.47E-04	potential residence	0.00	2027
564410_4183670	564410	4183670	2.18E-04	2.02E-04	1.99E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	potential residence	0.00	2027
564430_4183670	564430	4183670	2.39E-04	2.22E-04	2.19E-04	0.00E+00	5.65E-04	9.74E-04	1.36E-04	3.24E-04	potential residence	0.00	2027
564450_4183670	564450	4183670	2.63E-04	2.45E-04	2.41E-04	0.00E+00	6.47E-04	1.12E-03	1.56E-04	3.71E-04	potential residence	0.00	2027
564470_4183670	564470	4183670	2.92E-04	2.74E-04	2.69E-04	0.00E+00	7.39E-04	1.27E-03	1.78E-04	4.24E-04	potential residence	0.00	2027
564650_4183670	564650	4183670	1.05E-03	1.01E-03	9.92E-04	0.00E+00	1.19E-03	2.05E-03	2.85E-04	6.81E-04	potential residence	0.00	2027
564670_4183670	564670	4183670	1.21E-03	1.15E-03	1.14E-03	0.00E+00	1.21E-03	2.09E-03	2.92E-04	6.97E-04	potential residence	0.00	2027
564730_4183670	564730	4183670	1.63E-03	1.56E-03	1.54E-03	0.00E+00	1.11E-03	1.92E-03	2.67E-04	6.38E-04	potential residence	0.00	2027
564750_4183670	564750	4183670	1.69E-03	1.62E-03	1.60E-03	0.00E+00	1.06E-03	1.83E-03	2.55E-04	6.10E-04	potential residence	0.00	2027
564770_4183670	564770	4183670	1.75E-03	1.68E-03	1.65E-03	0.00E+00	1.02E-03	1.77E-03	2.46E-04	5.88E-04	potential residence	0.00	2027
564790_4183670	564790	4183670	1.76E-03	1.69E-03	1.66E-03	0.00E+00	9.83E-04	1.69E-03	2.36E-04	5.64E-04	potential residence	0.00	2022
564810_4183670	564810	4183670	1.75E-03	1.68E-03	1.65E-03	0.00E+00	9.45E-04	1.63E-03	2.27E-04	5.43E-04	potential residence	0.00	2022
564830_4183670	564830	4183670	1.70E-03	1.63E-03	1.61E-03	0.00E+00	9.08E-04	1.57E-03	2.18E-04	5.21E-04	potential residence	0.00	2022

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

			Mitigated									$PM_{2.5}$ Concentration	
Lookup	X (UTM)	Y (UTM	2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	Max	Max Year
564850_418367C	564850	4183670	1.68E-03	1.61E-03	1.58E-03	0.00E+00	8.77E-04	1.51E-03	2.11E-04	5.04E-04	potential residence	0.00	2022
564870_418367C	564870	4183670	1.57E-03	1.51E-03	1.49E-03	0.00E+00	8.30E-04	1.43E-03	1.99E-04	4.76E-04	potential residence	0.00	2022
564890_418367C	564890	4183670	1.48E-03	1.42E-03	1.40E-03	0.00E+00	7.93E-04	1.37E-03	1.91E-04	4.55E-04	potential residence	0.00	2022
564910_418367C	564910	4183670	1.40E-03	1.34E-03	1.32E-03	0.00E+00	7.62E-04	1.31E-03	1.83E-04	4.37E-04	potential residence	0.00	2022
564930_418367C	564930	4183670	1.31E-03	1.25E-03	1.23E-03	0.00E+00	7.33E-04	1.26E-03	1.76E-04	4.21E-04	potential residence	0.00	2022
564270_418369C	564270	4183690	1.24E-04	1.14E-04	1.12E-04	0.00E+00	2.12E-04	3.65E-04	5.13E-05	1.21E-04	potential residence	0.00	2027
564290_418369C	564290	4183690	1.32E-04	1.22E-04	1.20E-04	0.00E+00	2.32E-04	4.01E-04	5.63E-05	1.33E-04	potential residence	0.00	2027
564310_418369C	564310	4183690	1.41E-04	1.31E-04	1.29E-04	0.00E+00	2.57E-04	4.44E-04	6.22E-05	1.47E-04	potential residence	0.00	2027
564330_418369C	564330	4183690	1.51E-04	1.40E-04	1.38E-04	0.00E+00	2.86E-04	4.93E-04	6.91E-05	1.64E-04	potential residence	0.00	2027
564350_418369C	564350	4183690	1.63E-04	1.51E-04	1.49E-04	0.00E+00	3.19E-04	5.51E-04	7.72E-05	1.83E-04	potential residence	0.00	2027
564370_418369C	564370	4183690	1.76E-04	1.64E-04	1.61E-04	0.00E+00	3.58E-04	6.18E-04	8.65E-05	2.06E-04	potential residence	0.00	2027
564390_418369C	564390	4183690	1.91E-04	1.78E-04	1.75E-04	0.00E+00	4.03E-04	6.96E-04	9.73E-05	2.31E-04	potential residence	0.00	2027
564410_418369C	564410	4183690	2.08E-04	1.94E-04	1.91E-04	0.00E+00	4.55E-04	7.85E-04	1.10E-04	2.61E-04	potential residence	0.00	2027
564430_418369C	564430	4183690	2.27E-04	2.12E-04	2.09E-04	0.00E+00	4.96E-04	8.56E-04	1.20E-04	2.85E-04	potential residence	0.00	2027
564450_418369C	564450	4183690	2.50E-04	2.34E-04	2.31E-04	0.00E+00	5.55E-04	9.58E-04	1.34E-04	3.19E-04	potential residence	0.00	2027
564470_418369C	564470	4183690	2.78E-04	2.61E-04	2.57E-04	0.00E+00	6.38E-04	1.10E-03	1.54E-04	3.66E-04	potential residence	0.00	2027
564570_418369C	564570	4183690	5.21E-04	4.95E-04	4.87E-04	0.00E+00	8.52E-04	1.47E-03	2.05E-04	4.89E-04	potential residence	0.00	2027
564590_418369C	564590	4183690	5.97E-04	5.68E-04	5.59E-04	0.00E+00	8.73E-04	1.51E-03	2.10E-04	5.01E-04	potential residence	0.00	2027
564650_418369C	564650	4183690	8.64E-04	8.26E-04	8.13E-04	0.00E+00	9.13E-04	1.57E-03	2.19E-04	5.24E-04	potential residence	0.00	2027
564670_418369C	564670	4183690	9.48E-04	9.07E-04	8.93E-04	0.00E+00	9.13E-04	1.57E-03	2.19E-04	5.24E-04	potential residence	0.00	2027
564730_418369C	564730	4183690	1.21E-03	1.16E-03	1.14E-03	0.00E+00	8.86E-04	1.53E-03	2.13E-04	5.09E-04	potential residence	0.00	2027
564750_418369C	564750	4183690	1.24E-03	1.19E-03	1.17E-03	0.00E+00	8.51E-04	1.47E-03	2.04E-04	4.88E-04	potential residence	0.00	2027
564770_418369C	564770	4183690	1.27E-03	1.22E-03	1.20E-03	0.00E+00	8.22E-04	1.42E-03	1.98E-04	4.72E-04	potential residence	0.00	2027
564790_418369C	564790	4183690	1.28E-03	1.23E-03	1.21E-03	0.00E+00	7.91E-04	1.36E-03	1.90E-04	4.54E-04	potential residence	0.00	2027
564810_418369C	564810	4183690	1.27E-03	1.22E-03	1.20E-03	0.00E+00	7.60E-04	1.31E-03	1.83E-04	4.37E-04	potential residence	0.00	2027
564830_418369C	564830	4183690	1.25E-03	1.20E-03	1.18E-03	0.00E+00	7.32E-04	1.26E-03	1.76E-04	4.20E-04	potential residence	0.00	2027
564850_418369C	564850	4183690	1.23E-03	1.18E-03	1.16E-03	0.00E+00	7.10E-04	1.22E-03	1.71E-04	4.08E-04	potential residence	0.00	2022
564870_418369C	564870	4183690	1.20E-03	1.15E-03	1.13E-03	0.00E+00	6.92E-04	1.19E-03	1.66E-04	3.97E-04	potential residence	0.00	2022
564890_418369C	564890	4183690	1.15E-03	1.10E-03	1.08E-03	0.00E+00	6.64E-04	1.15E-03	1.60E-04	3.81E-04	potential residence	0.00	2022
564910_418369C	564910	4183690	1.09E-03	1.05E-03	1.03E-03	0.00E+00	6.38E-04	1.10E-03	1.53E-04	3.66E-04	potential residence	0.00	2027
564930_418369C	564930	4183690	1.03E-03	9.86E-04	9.71E-04	0.00E+00	6.15E-04	1.06E-03	1.48E-04	3.53E-04	potential residence	0.00	2027
564290_418371C	564290	4183710	1.27E-04	1.18E-04	1.16E-04	0.00E+00	2.24E-04	3.87E-04	5.43E-05	1.29E-04	potential residence	0.00	2027
564310_418371C	564310	4183710	1.36E-04	1.27E-04	1.25E-04	0.00E+00	2.47E-04	4.27E-04	5.98E-05	1.42E-04	potential residence	0.00	2027
564330_418371C	564330	4183710	1.46E-04	1.36E-04	1.34E-04	0.00E+00	2.73E-04	4.72E-04	6.61E-05	1.57E-04	potential residence	0.00	2027
564350_418371C	564350	4183710	1.57E-04	1.47E-04	1.44E-04	0.00E+00	3.04E-04	5.24E-04	7.33E-05	1.74E-04	potential residence	0.00	2027
564370_418371C	564370	4183710	1.70E-04	1.58E-04	1.56E-04	0.00E+00	3.38E-04	5.83E-04	8.14E-05	1.94E-04	potential residence	0.00	2027
564390_418371C	564390	4183710	1.83E-04	1.71E-04	1.69E-04	0.00E+00	3.65E-04	6.30E-04	8.80E-05	2.09E-04	potential residence	0.00	2027
564410_418371C	564410	4183710	1.98E-04	1.86E-04	1.83E-04	0.00E+00	4.03E-04	6.95E-04	9.71E-05	2.31E-04	potential residence	0.00	2027
564430_418371C	564430	4183710	2.18E-04	2.04E-04	2.01E-04	0.00E+00	4.47E-04	7.71E-04	1.08E-04	2.56E-04	potential residence	0.00	2027
564450_418371C	564450	4183710	2.40E-04	2.25E-04	2.22E-04	0.00E+00	4.91E-04	8.46E-04	1.18E-04	2.82E-04	potential residence	0.00	2027
564470_418371C	564470	4183710	2.66E-04	2.50E-04	2.46E-04	0.00E+00	5.32E-04	9.17E-04	1.28E-04	3.05E-04	potential residence	0.00	2027
564490_418371C	564490	4183710	2.97E-04	2.80E-04	2.76E-04	0.00E+00	5.70E-04	9.84E-04	1.37E-04	3.27E-04	potential residence	0.00	2027
564530_418371C	564530	4183710	3.74E-04	3.54E-04	3.49E-04	0.00E+00	6.35E-04	1.10E-03	1.53E-04	3.65E-04	potential residence	0.00	2027
564550_418371C	564550	4183710	4.20E-04	3.98E-04	3.92E-04	0.00E+00	6.57E-04	1.13E-03	1.58E-04	3.77E-04	potential residence	0.00	2027
564570_418371C	564570	4183710	4.73E-04	4.49E-04	4.43E-04	0.00E+00	6.76E-04	1.17E-03	1.62E-04	3.88E-04	potential residence	0.00	2027
564590_418371C	564590	4183710	5.32E-04	5.07E-04	4.99E-04	0.00E+00	6.91E-04	1.19E-03	1.66E-04	3.97E-04	potential residence	0.00	2027
564650_418371C	564650	4183710	7.13E-04	6.81E-04	6.71E-04	0.00E+00	7.25E-04	1.25E-03	1.74E-04	4.16E-04	potential residence	0.00	2027
564670_418371C	564670	4183710	7.68E-04	7.34E-04	7.23E-04	0.00E+00	7.50E-04	1.29E-03	1.80E-04	4.31E-04	potential residence	0.00	2027
564690_418371C	564690	4183710	8.21E-04	7.85E-04	7.73E-04	0.00E+00	7.49E-04	1.29E-03	1.80E-04	4.30E-04	potential residence	0.00	2027
564710_418371C	564710	4183710	8.57E-04	8.21E-04	8.08E-04	0.00E+00	7.36E-04	1.27E-03	1.77E-04	4.23E-04	potential residence	0.00	2027
564730_418371C	564730	4183710	9.29E-04	8.90E-04	8.76E-04	0.00E+00	7.20E-04	1.24E-03	1.73E-04	4.13E-04	potential residence	0.00	2027
564750_418371C	564750	4183710	9.51E-04	9.11E-04	8.97E-04	0.00E+00	6.98E-04	1.20E-03	1.68E-04	4.01E-04	potential residence	0.00	2027
564770_418371C	564770	4183710	9.63E-04	9.23E-04	9.09E-04	0.00E+00	6.73E-04	1.16E-03	1.62E-04	3.86E-04	potential residence	0.00	2027
564790_418371C	564790	4183710	9.73E-04	9.33E-04	9.18E-04	0.00E+00	6.51E-04	1.12E-03	1.56E-04	3.74E-04	potential residence	0.00	2027
564810_418371C	564810	4183710	9.71E-04	9.31E-04	9.17E-04	0.00E+00	6.27E-04	1.08E-03	1.51E-04	3.60E-04	potential residence	0.00	2027
564830_418371C	564830	4183710	9.59E-04	9.19E-04	9.05E-04	0.00E+00	6.04E-04	1.04E-03	1.45E-04	3.47E-04	potential residence	0.00	2027
564850_418371C	564850	4183710	9.33E-04	8.94E-04	8.80E-04	0.00E+00	5.81E-04	1.00E-03	1.40E-04	3.34E-04	potential residence	0.00	2027
564870_418371C	564870	4183710	9.10E-04	8.72E-04	8.59E-04	0.00E+00	5.64E-04	9.73E-04	1.36E-04	3.24E-04	potential residence	0.00	2027
564890_418371C	564890	4183710	9.07E-04	8.70E-04	8.56E-04	0.00E+00	5.58E-04	9.62E-04	1.34E-04	3.20E-04	potential residence	0.00	2027
564910_418371C	564910	4183710	8.68E-04	8.32E-04	8.19E-04	0.00E+00	5.39E-04	9.29E-04	1.30E-04	3.09E-04	potential residence	0.00	2027
564930_418371C	564930	4183710	8.29E-04	7.95E-04	7.82E-04	0.00E+00	5.20E-04	8.98E-04	1.25E-04	2.99E-04	potential residence	0.00	2027
564950_418371C	564950	4183710	7.94E-04	7.61E-04	7.50E-04	0.00E+00	5.00E-04	8.63E-04	1.20E-04	2.87E-04	potential residence	0.00	2027
564310_418373C	564310	4183730	1.32E-04	1.23E-04	1.21E-04	0.00E+00	2.37E-04	4.09E-04	5.73E-05	1.36E-04	potential residence	0.00	2027
564330_418373C	564330	4183730	1.41E-04	1.31E-04	1.29E-04	0.00E+00	2.54E-04	4.38E-04	6.12E-05	1.45E-04	potential residence	0.00	2027
564350_418373C	564350	4183730	1.51E-04	1.41E-04	1.39E-04	0.00E+00	2.79E-04	4.82E-04	6.74E-05	1.60E-04	potential residence	0.00	2027
564370_418373C	564370	4183730	1.64E-04	1.53E-04	1.51E-04	0.00E+00	3.09E-04	5.33E-04	7.45E-05	1.77E-04	potential residence	0.00	2027
564390_418373C	564390	4183730	1.77E-04	1.66E-04	1.63E-04	0.00E+00	3.38E-04	5.83E-04	8.14E-05	1.94E-04	potential residence	0.00	2027
564410_418373C	564410	4183730	1.91E-04	1.80E-04	1.77E-04	0.00E+00	3.68E-04	6.35E-04	8.87E-05	2.11E-04	potential residence	0.00	2027
564430_418373C	564430	4183730	2.10E-04	1.98E-04	1.95E-04	0.00E+00	4.02E-04	6.93E-04	9.68E-05	2.31E-04	potential residence	0.00	2027
564450_418373C	564450	4183730	2.31E-04	2.18E-04	2.15E-04	0.00E+00	4.33E-04	7.47E-04	1.04E-04	2.49E-04	potential residence	0.00	2027
564470_418373C	564470	4183730	2.55E-04	2.41E-04	2.37E-04	0.00E+00	4.61E-04	7.95E-04	1.11E-04	2.65E-04	potential residence	0.00	2027
564490_418373C	564490	4183730	2.83E-04	2.68E-04	2.64E-04	0.00E+00	4.86E-04	8.38E-04	1.17E-04	2.79E-04	potential residence	0.00	2027
564510_418373C	564510	4183730	3.14E-04	2.98E-04	2.93E-04	0.00E+00	5.08E-04	8.76E-04	1.22E-04	2.91E-04	potential residence	0.00	2027
564530_418373C	564530	4183730	3.50E-04	3.32E-04	3.27E-04	0.00E+00	5.28E-04	9.10E-04	1.27E-04	3.03E-04	potential residence	0.00	2027
564550_418373C	564550	4183730	3.87E-04	3.68E-04	3.62E-04	0.00E+00	5.42E-04	9.36E-04	1.30E-04	3.11E-04	potential residence	0.00	2027
564570_418373C	564570	4183730	4.30E-04	4.09E-04	4.03E-04	0.00E+00	5.56E-04	9.58E-04	1.34E-04	3.19E-04	potential residence	0.00	2027
564590_418373C	564590	4183730	4.74E-04	4.52E-04	4.45E-04	0.00E+00	5.66E-04	9.76E-04	1.36E-04	3.25E-04	potential residence	0.00	2027
564610_418373C	564610	4183730	5.19E-04	4.95E-04	4.87E-04	0.00E+00	5.76E-04	9.93E-04	1.39E-04	3.31E-04	potential residence	0.00	2027
564630_418373C	564630	4183730	5.60E-04	5.35E-04	5.26E-04	0.00E+00	5.85E-04	1.01E-03	1.41E-04	3.36E-04	potential residence	0.00	2027
564650_418373C	564650	4183730	5.96E-04	5.69E-04	5.60E-04	0.00E+00	5.92E-04	1.02E-03	1.42E-04	3.40E-04	potential residence	0.00	2027
564670_418373C	564670	4183730	6.30E-04	6.02E-04	5.93E-04	0.00E+00	5.96E-04	1.03E-03	1.43E-04	3.42E-04	potential residence	0.00	2027
564690_418373C	564690	4183730	6.62E-04	6.33E-04	6.23E-04	0.00E+00	6.11E-04	1.05E-03	1.47E-04	3.51E-04	potential residence	0.00	2027
564710_418373C	564710	4183730	6.85E-04	6.56E-04	6.46E-04	0.00E+00	6.05E-04	1.04E-03	1.45E-04	3.47E-04	potential residence	0.00	2027
564730_418373C	564730	4183730	7.05E-04	6.75E-04	6.64E-04	0.00E+00	5.95E-04	1.03E-03	1.43E-04	3.41E-04	potential residence	0.00	2027
564750_418373C	564750	4183730	7.52E-04	7.20E-04	7.09E-04	0.00E+00	5.82E-04	1.00E-03	1.40E-04	3.34E-04	potential residence	0.00	2027
564770_418373C	564770	4183730	7.62E-04	7.30E-04	7.18E-04	0.00E+00	5.65E-04	9.75E-04	1.36E-04	3.24E-04	potential residence	0.00	2027
564790_418373C	564790	4183730	7.64E-04	7.32E-04	7.20E-04	0.00E+00	5.46E-04	9.41E-04	1.31E-04	3.13E-04	potential residence	0.00	2027
564810_418373C	564810	4183730	7.67E-04	7.35E-04	7.23E-04	0.00E+00	5.29E-04	9.12E-04	1.27E-04	3.03E-04	potential residence	0.00	2027
564830_418373C	564830	4183730	7.63E-04	7.31E-04	7.19E-04	0.00E+00	5.11E-04	8.81E-04	1.23E-04	2.93E-04	potential residence	0.00	2027
564850_418373C	564850	4183730	7.51E-04	7.20E-04	7.09E-04	0.00E+00	4.94E-04	8.52E-04	1.19E-04	2.84E-04	potential residence	0.00	2027
564870_418373C	564870	4183730	7.26E-04	6.96E-04	6.85E-04	0.00E+00	4.74E-04	8.18E-04	1.14E-04	2.72E-04	potential residence	0.00	2027
564890_418373C	564890	4183730	7.41E-04	7.11E-04	7.00E-04	0.00E+00	4.75E-04	8.19E-04	1.14E-04	2.73E-04	potential residence	0.00	2027
564910_418373C	564910	4183730	7.11E-04	6.81E-04	6.70E-04	0.00E+00	4.59E-04	7.92E-04	1.10E-04	2.64E-04	potential residence	0.00	2027
564930_418373C	564930	4183730	6.83E-04	6.55E-04	6.45E-04	0.00E+00	4.45E-04	7.67E-04	1.07E-04	2.55E-04	potential residence	0.00	2027
564950_418373C	564950	4183730	6.57E-04	6.29E-04	6.20E-04	0.00E+00	4.30E-04	7.41E-04	1.03E-04	2.47E-04	potential residence	0.00	2027
564330_418375C	564330	4183750	1.36E-04	1.27E-04	1.25E-04	0.00E+00	2.40E-04	4.14E-04	5.79E-05	1.38E-04	potential residence	0.00	2027
564350_418375C	564350	4183750	1.47E-04	1.37E-04	1.35E-04	0.00E+00	2.63E-04	4.54E-04	6.35E-05	1.51E-04	potential residence	0.00	2027
564370_418375C	564370	4183750	1.58E-04	1.48E-04	1.46E-04	0.00E+00	2.87E-04	4.95E-04	6.91E-05	1.65E-04	potential residence	0.00	2027
564390_418375C	564390	4183750	1.71E-04	1.61E-04	1.59E-04	0.00E+00	3.12E-04	5.38E-04	7.52E-05	1.79E-04	potential residence	0.00	2027
564410_418375C	564410	4183750	1.86E-04	1.75E-04	1.72E-04	0.00E+00	3.36E-04	5.80E-04	8.10E-05	1.93E-04	potential residence	0.00	2027
564430_418375C	564430	4183750	2.03E-04	1.91E-04	1.88E-04	0.00E+00	3.60E-04	6.21E-04	8.66E-05	2.07E-04	potential residence	0.00	2027
564450_418375C	564450	4183750	2.22E-04	2.10E-04	2.07E-04	0.00E+00	3.82E-04	6.58E-04	9.19E-05	2.19E-04	potential residence	0.00	2027
564470_418375C	564470	4183750	2.44E-04	2.30E-04	2.27E-04	0.00E+00	3.99E-04	6.88E-04	9.60E-05	2.29E-04	potential residence	0.00	2027
564490_418375C	564490	4183750	2.68E-04	2.54E-04	2.50E-04	0.00E+00	4.16E-04	7.17E-04	1.00E-04	2.39E-04	potential residence	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type	$PM_{2.5}$ Concentration	
			2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564510_4183750	564510	4183750	2.97E-04	2.82E-04	2.77E-04	0.00E+00	4.33E-04	7.47E-04	1.04E-04	2.49E-04	potential residence	0.00	2027
564530_4183750	564530	4183750	3.24E-04	3.08E-04	3.03E-04	0.00E+00	4.44E-04	7.66E-04	1.07E-04	2.55E-04	potential residence	0.00	2027
564550_4183750	564550	4183750	3.56E-04	3.39E-04	3.34E-04	0.00E+00	4.58E-04	7.89E-04	1.10E-04	2.63E-04	potential residence	0.00	2027
564570_4183750	564570	4183750	3.88E-04	3.69E-04	3.64E-04	0.00E+00	4.65E-04	8.03E-04	1.12E-04	2.67E-04	potential residence	0.00	2027
564590_4183750	564590	4183750	4.20E-04	4.01E-04	3.95E-04	0.00E+00	4.73E-04	8.16E-04	1.14E-04	2.71E-04	potential residence	0.00	2027
564610_4183750	564610	4183750	4.53E-04	4.32E-04	4.25E-04	0.00E+00	4.82E-04	8.31E-04	1.16E-04	2.76E-04	potential residence	0.00	2027
564630_4183750	564630	4183750	4.77E-04	4.56E-04	4.49E-04	0.00E+00	4.85E-04	8.37E-04	1.17E-04	2.78E-04	potential residence	0.00	2027
564650_4183750	564650	4183750	5.01E-04	4.78E-04	4.71E-04	0.00E+00	4.90E-04	8.45E-04	1.18E-04	2.81E-04	potential residence	0.00	2027
564670_4183750	564670	4183750	5.20E-04	4.97E-04	4.89E-04	0.00E+00	4.91E-04	8.47E-04	1.18E-04	2.82E-04	potential residence	0.00	2027
564690_4183750	564690	4183750	5.43E-04	5.19E-04	5.11E-04	0.00E+00	4.95E-04	8.54E-04	1.19E-04	2.84E-04	potential residence	0.00	2027
564710_4183750	564710	4183750	5.59E-04	5.35E-04	5.27E-04	0.00E+00	4.94E-04	8.52E-04	1.19E-04	2.83E-04	potential residence	0.00	2027
564730_4183750	564730	4183750	5.73E-04	5.48E-04	5.40E-04	0.00E+00	4.99E-04	8.61E-04	1.20E-04	2.87E-04	potential residence	0.00	2027
564750_4183750	564750	4183750	6.10E-04	5.84E-04	5.75E-04	0.00E+00	4.92E-04	8.48E-04	1.18E-04	2.82E-04	potential residence	0.00	2027
564770_4183750	564770	4183750	6.17E-04	5.91E-04	5.81E-04	0.00E+00	4.81E-04	8.29E-04	1.16E-04	2.76E-04	potential residence	0.00	2027
564790_4183750	564790	4183750	6.19E-04	5.93E-04	5.84E-04	0.00E+00	4.66E-04	8.04E-04	1.12E-04	2.68E-04	potential residence	0.00	2027
564810_4183750	564810	4183750	6.22E-04	5.96E-04	5.87E-04	0.00E+00	4.53E-04	7.82E-04	1.09E-04	2.60E-04	potential residence	0.00	2027
564830_4183750	564830	4183750	6.23E-04	5.97E-04	5.88E-04	0.00E+00	4.40E-04	7.59E-04	1.06E-04	2.53E-04	potential residence	0.00	2027
564850_4183750	564850	4183750	6.21E-04	5.95E-04	5.86E-04	0.00E+00	4.28E-04	7.39E-04	1.03E-04	2.46E-04	potential residence	0.00	2027
564870_4183750	564870	4183750	6.17E-04	5.91E-04	5.82E-04	0.00E+00	4.18E-04	7.21E-04	1.01E-04	2.40E-04	potential residence	0.00	2027
564890_4183750	564890	4183750	6.15E-04	5.89E-04	5.80E-04	0.00E+00	4.10E-04	7.07E-04	9.85E-05	2.35E-04	potential residence	0.00	2027
564910_4183750	564910	4183750	5.95E-04	5.70E-04	5.61E-04	0.00E+00	3.96E-04	6.84E-04	9.53E-05	2.28E-04	potential residence	0.00	2027
564930_4183750	564930	4183750	5.73E-04	5.49E-04	5.40E-04	0.00E+00	3.85E-04	6.64E-04	9.25E-05	2.21E-04	potential residence	0.00	2027
564950_4183750	564950	4183750	5.50E-04	5.27E-04	5.19E-04	0.00E+00	3.71E-04	6.39E-04	8.92E-05	2.13E-04	potential residence	0.00	2027
564370_4183770	564370	4183770	1.53E-04	1.44E-04	1.42E-04	0.00E+00	2.66E-04	4.60E-04	6.42E-05	1.53E-04	potential residence	0.00	2027
564390_4183770	564390	4183770	1.66E-04	1.56E-04	1.54E-04	0.00E+00	2.85E-04	4.93E-04	6.88E-05	1.64E-04	potential residence	0.00	2027
564410_4183770	564410	4183770	1.80E-04	1.70E-04	1.67E-04	0.00E+00	3.04E-04	5.25E-04	7.33E-05	1.75E-04	potential residence	0.00	2027
564430_4183770	564430	4183770	1.95E-04	1.84E-04	1.81E-04	0.00E+00	3.20E-04	5.53E-04	7.71E-05	1.84E-04	potential residence	0.00	2027
564450_4183770	564450	4183770	2.13E-04	2.01E-04	1.98E-04	0.00E+00	3.35E-04	5.78E-04	8.07E-05	1.92E-04	potential residence	0.00	2027
564470_4183770	564470	4183770	2.32E-04	2.19E-04	2.16E-04	0.00E+00	3.47E-04	5.98E-04	8.34E-05	1.99E-04	potential residence	0.00	2027
564490_4183770	564490	4183770	2.53E-04	2.40E-04	2.37E-04	0.00E+00	3.59E-04	6.19E-04	8.64E-05	2.06E-04	potential residence	0.00	2027
564510_4183770	564510	4183770	2.78E-04	2.64E-04	2.60E-04	0.00E+00	3.73E-04	6.43E-04	8.97E-05	2.14E-04	potential residence	0.00	2027
564530_4183770	564530	4183770	3.02E-04	2.87E-04	2.83E-04	0.00E+00	3.84E-04	6.62E-04	9.24E-05	2.20E-04	potential residence	0.00	2027
564550_4183770	564550	4183770	3.26E-04	3.10E-04	3.05E-04	0.00E+00	3.92E-04	6.76E-04	9.42E-05	2.25E-04	potential residence	0.00	2027
564570_4183770	564570	4183770	3.51E-04	3.34E-04	3.29E-04	0.00E+00	3.99E-04	6.89E-04	9.61E-05	2.29E-04	potential residence	0.00	2027
564590_4183770	564590	4183770	3.73E-04	3.56E-04	3.50E-04	0.00E+00	4.03E-04	6.96E-04	9.70E-05	2.31E-04	potential residence	0.00	2027
564610_4183770	564610	4183770	3.92E-04	3.74E-04	3.68E-04	0.00E+00	4.05E-04	6.99E-04	9.74E-05	2.32E-04	potential residence	0.00	2027
564630_4183770	564630	4183770	4.09E-04	3.91E-04	3.84E-04	0.00E+00	4.08E-04	7.04E-04	9.81E-05	2.34E-04	potential residence	0.00	2027
564650_4183770	564650	4183770	4.28E-04	4.09E-04	4.03E-04	0.00E+00	4.15E-04	7.15E-04	9.97E-05	2.38E-04	potential residence	0.00	2027
564670_4183770	564670	4183770	4.43E-04	4.23E-04	4.17E-04	0.00E+00	4.17E-04	7.19E-04	1.00E-04	2.39E-04	potential residence	0.00	2027
564690_4183770	564690	4183770	4.56E-04	4.36E-04	4.29E-04	0.00E+00	4.18E-04	7.21E-04	1.01E-04	2.40E-04	potential residence	0.00	2027
564710_4183770	564710	4183770	4.69E-04	4.48E-04	4.41E-04	0.00E+00	4.29E-04	7.39E-04	1.03E-04	2.46E-04	potential residence	0.00	2027
564730_4183770	564730	4183770	4.79E-04	4.58E-04	4.51E-04	0.00E+00	4.26E-04	7.35E-04	1.03E-04	2.45E-04	potential residence	0.00	2027
564750_4183770	564750	4183770	5.06E-04	4.84E-04	4.77E-04	0.00E+00	4.21E-04	7.27E-04	1.01E-04	2.42E-04	potential residence	0.00	2027
564770_4183770	564770	4183770	5.11E-04	4.89E-04	4.81E-04	0.00E+00	4.14E-04	7.14E-04	9.95E-05	2.37E-04	potential residence	0.00	2027
564790_4183770	564790	4183770	5.14E-04	4.92E-04	4.84E-04	0.00E+00	4.04E-04	6.97E-04	9.72E-05	2.32E-04	potential residence	0.00	2027
564810_4183770	564810	4183770	5.17E-04	4.95E-04	4.87E-04	0.00E+00	3.94E-04	6.79E-04	9.47E-05	2.26E-04	potential residence	0.00	2027
564830_4183770	564830	4183770	5.20E-04	4.98E-04	4.90E-04	0.00E+00	3.84E-04	6.63E-04	9.24E-05	2.21E-04	potential residence	0.00	2027
564850_4183770	564850	4183770	5.24E-04	5.02E-04	4.94E-04	0.00E+00	3.77E-04	6.50E-04	9.06E-05	2.16E-04	potential residence	0.00	2027
564870_4183770	564870	4183770	5.27E-04	5.05E-04	4.97E-04	0.00E+00	3.70E-04	6.38E-04	8.90E-05	2.12E-04	potential residence	0.00	2027
564890_4183770	564890	4183770	5.18E-04	4.96E-04	4.88E-04	0.00E+00	3.57E-04	6.16E-04	8.59E-05	2.05E-04	potential residence	0.00	2027
564910_4183770	564910	4183770	5.02E-04	4.80E-04	4.73E-04	0.00E+00	3.45E-04	5.95E-04	8.30E-05	1.98E-04	potential residence	0.00	2027
564930_4183770	564930	4183770	4.85E-04	4.65E-04	4.58E-04	0.00E+00	3.34E-04	5.76E-04	8.04E-05	1.92E-04	potential residence	0.00	2027
564410_4183790	564410	4183790	1.74E-04	1.64E-04	1.62E-04	0.00E+00	2.75E-04	4.75E-04	6.63E-05	1.58E-04	potential residence	0.00	2027
564430_4183790	564430	4183790	1.87E-04	1.77E-04	1.74E-04	0.00E+00	2.85E-04	4.92E-04	6.87E-05	1.64E-04	potential residence	0.00	2027
564450_4183790	564450	4183790	2.03E-04	1.92E-04	1.89E-04	0.00E+00	2.95E-04	5.09E-04	7.10E-05	1.69E-04	potential residence	0.00	2027
564470_4183790	564470	4183790	2.20E-04	2.09E-04	2.06E-04	0.00E+00	3.05E-04	5.26E-04	7.34E-05	1.75E-04	potential residence	0.00	2027
564490_4183790	564490	4183790	2.38E-04	2.26E-04	2.22E-04	0.00E+00	3.12E-04	5.39E-04	7.52E-05	1.79E-04	potential residence	0.00	2027
564510_4183790	564510	4183790	2.58E-04	2.45E-04	2.41E-04	0.00E+00	3.24E-04	5.58E-04	7.79E-05	1.86E-04	potential residence	0.00	2027
564530_4183790	564530	4183790	2.77E-04	2.64E-04	2.59E-04	0.00E+00	3.32E-04	5.73E-04	7.99E-05	1.91E-04	potential residence	0.00	2027
564550_4183790	564550	4183790	2.97E-04	2.82E-04	2.78E-04	0.00E+00	3.40E-04	5.86E-04	8.18E-05	1.95E-04	potential residence	0.00	2027
564570_4183790	564570	4183790	3.13E-04	2.98E-04	2.94E-04	0.00E+00	3.43E-04	5.92E-04	8.25E-05	1.97E-04	potential residence	0.00	2027
564590_4183790	564590	4183790	3.28E-04	3.13E-04	3.08E-04	0.00E+00	3.44E-04	5.93E-04	8.28E-05	1.97E-04	potential residence	0.00	2027
564610_4183790	564610	4183790	3.40E-04	3.24E-04	3.19E-04	0.00E+00	3.44E-04	5.94E-04	8.28E-05	1.98E-04	potential residence	0.00	2027
564630_4183790	564630	4183790	3.53E-04	3.37E-04	3.32E-04	0.00E+00	3.47E-04	5.99E-04	8.35E-05	1.99E-04	potential residence	0.00	2027
564650_4183790	564650	4183790	3.69E-04	3.52E-04	3.47E-04	0.00E+00	3.54E-04	6.10E-04	8.51E-05	2.03E-04	potential residence	0.00	2027
564670_4183790	564670	4183790	3.82E-04	3.65E-04	3.59E-04	0.00E+00	3.68E-04	6.34E-04	8.84E-05	2.11E-04	potential residence	0.00	2027
564690_4183790	564690	4183790	3.91E-04	3.73E-04	3.67E-04	0.00E+00	3.59E-04	6.20E-04	8.65E-05	2.06E-04	potential residence	0.00	2027
564710_4183790	564710	4183790	4.23E-04	4.04E-04	3.98E-04	0.00E+00	3.73E-04	6.43E-04	8.97E-05	2.14E-04	potential residence	0.00	2027
564730_4183790	564730	4183790	4.43E-04	4.23E-04	4.17E-04	0.00E+00	3.82E-04	6.59E-04	9.19E-05	2.19E-04	potential residence	0.00	2027
564750_4183790	564750	4183790	4.30E-04	4.11E-04	4.04E-04	0.00E+00	3.66E-04	6.32E-04	8.81E-05	2.10E-04	potential residence	0.00	2027
564770_4183790	564770	4183790	4.29E-04	4.10E-04	4.04E-04	0.00E+00	3.59E-04	6.19E-04	8.63E-05	2.06E-04	potential residence	0.00	2027
564790_4183790	564790	4183790	4.32E-04	4.13E-04	4.07E-04	0.00E+00	3.52E-04	6.07E-04	8.47E-05	2.02E-04	potential residence	0.00	2027
564810_4183790	564810	4183790	4.36E-04	4.17E-04	4.10E-04	0.00E+00	3.45E-04	5.95E-04	8.30E-05	1.98E-04	potential residence	0.00	2027
564830_4183790	564830	4183790	4.38E-04	4.19E-04	4.13E-04	0.00E+00	3.37E-04	5.82E-04	8.11E-05	1.94E-04	potential residence	0.00	2027
564850_4183790	564850	4183790	4.45E-04	4.25E-04	4.19E-04	0.00E+00	3.32E-04	5.73E-04	8.00E-05	1.91E-04	potential residence	0.00	2027
564870_4183790	564870	4183790	4.43E-04	4.24E-04	4.17E-04	0.00E+00	3.21E-04	5.54E-04	7.73E-05	1.84E-04	potential residence	0.00	2027
564890_4183790	564890	4183790	4.36E-04	4.18E-04	4.11E-04	0.00E+00	3.12E-04	5.39E-04	7.52E-05	1.79E-04	potential residence	0.00	2027
564910_4183790	564910	4183790	4.28E-04	4.10E-04	4.04E-04	0.00E+00	3.04E-04	5.25E-04	7.32E-05	1.75E-04	potential residence	0.00	2027
564930_4183790	564930	4183790	4.19E-04	4.01E-04	3.95E-04	0.00E+00	2.97E-04	5.13E-04	7.15E-05	1.71E-04	potential residence	0.00	2027
564450_4183810	564450	4183810	1.93E-04	1.83E-04	1.80E-04	0.00E+00	2.62E-04	4.52E-04	6.31E-05	1.50E-04	potential residence	0.00	2027
564470_4183810	564470	4183810	2.08E-04	1.97E-04	1.94E-04	0.00E+00	2.69E-04	4.65E-04	6.48E-05	1.55E-04	potential residence	0.00	2027
564490_4183810	564490	4183810	2.23E-04	2.12E-04	2.09E-04	0.00E+00	2.77E-04	4.77E-04	6.66E-05	1.59E-04	potential residence	0.00	2027
564510_4183810	564510	4183810	2.39E-04	2.27E-04	2.24E-04	0.00E+00	2.84E-04	4.90E-04	6.84E-05	1.63E-04	School	0.00	2027
564530_4183810	564530	4183810	2.54E-04	2.42E-04	2.38E-04	0.00E+00	2.92E-04	5.03E-04	7.02E-05	1.67E-04	School	0.00	2027
564550_4183810	564550	4183810	2.69E-04	2.56E-04	2.52E-04	0.00E+00	2.97E-04	5.13E-04	7.15E-05	1.71E-04	potential residence	0.00	2027
564570_4183810	564570	4183810	2.80E-04	2.67E-04	2.63E-04	0.00E+00	2.98E-04	5.15E-04	7.18E-05	1.71E-04	potential residence	0.00	2027
564590_4183810	564590	4183810	2.91E-04	2.77E-04	2.73E-04	0.00E+00	2.99E-04	5.16E-04	7.20E-05	1.72E-04	potential residence	0.00	2027
564610_4183810	564610	4183810	3.00E-04	2.86E-04	2.82E-04	0.00E+00	3.00E-04	5.18E-04	7.22E-05	1.72E-04	potential residence	0.00	2027
564630_4183810	564630	4183810	3.09E-04	2.95E-04	2.91E-04	0.00E+00	3.01E-04	5.20E-04	7.25E-05	1.73E-04	potential residence	0.00	2027
564650_4183810	564650	4183810	3.21E-04	3.06E-04	3.02E-04	0.00E+00	3.06E-04	5.28E-04	7.36E-05	1.76E-04	potential residence	0.00	2027
564670_4183810	564670	4183810	3.32E-04	3.16E-04	3.12E-04	0.00E+00	3.18E-04	5.49E-04	7.66E-05	1.83E-04	potential residence	0.00	2027
564690_4183810	564690	4183810	3.41E-04	3.26E-04	3.21E-04	0.00E+00	3.21E-04	5.53E-04	7.71E-05	1.84E-04	potential residence	0.00	2027
564710_4183810	564710	4183810	3.62E-04	3.46E-04	3.41E-04	0.00E+00	3.23E-04	5.56E-04	7.76E-05	1.85E-04	potential residence	0.00	2027
564730_4183810	564730	4183810	3.47E-04	3.32E-04	3.27E-04	0.00E+00	3.20E-04	5.51E-04	7.69E-05	1.83E-04	potential residence	0.00	2027
564750_4183810	564750	4183810	3.50E-04	3.34E-04	3.29E-04	0.00E+00	3.18E-04	5.48E-04	7.64E-05	1.82E-04	potential residence	0.00	2027
564770_4183810	564770	4183810	3.66E-04	3.50E-04	3.45E-04	0.00E+00	3.14E-04	5.42E-04	7.56E-05	1.80E-04	potential residence	0.00	2027
564790_4183810	564790	4183810	3.69E-04	3.53E-04	3.47E-04	0.00E+00	3.10E-04	5.35E-04	7.46E-05	1.78E-04	potential residence	0.00	2027
564810_4183810	564810	4183810	3.72E-04	3.55E-04	3.50E-04	0.00E+00	3.04E-04	5.25E-04	7.32E-05	1.75E-04	potential residence	0.00	2027
564830_4183810	564830	4183810	3.74E-04	3.58E-04	3.52E-04	0.00E+00	2.98E-04	5.14E-04	7.17E-05	1.71E-04	potential residence	0.00	2027
564850_4183810	564850	4183810	3.76E-04	3.60E-04	3.54E-04	0.00E+00	2.92E-04	5.04E-04	7.03E-05	1.68E-04	potential residence	0.00	2027
564870_4183810	564870	4183810	3.80E-04	3.64E-04	3.58E-04	0.00E+00	2.88E-04	4.97E-04	6.93E-05	1.65E-04	potential residence	0.00	2027
564890_4183810	564890	4183810	3.75E-04	3.59E-04	3.53E-04	0.00E+00	2.80E-04	4.83E-04	6.74E-05	1.61E-04	potential residence	0.00	2027
564910_4183810	564910	4183810	3.70E-04	3.54E-04	3.49E-04	0.00E+00	2.73E-04	4.72E-04	6.58E-05	1.57E-04	potential residence	0.00	2027
564930_4183810	564930	4183810	3.64E-04	3.48E-04	3.42E-04	0.00E+00	2.66E-04	4.58E-04	6.39E-05	1.53E-04	potential residence	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3) | Mitigated $PM_{2.5}$ Annual Average Concentra

Lookup	X (UTM)	Y (UTM	Mitigated 2022	2023	2024	2025	2026	2027	2028	2029	Receptor Type	$PM_{2.5}$ Concentration Max	Max Year
564470_4183830	564470	4183830	1.96E-04	1.86E-04	1.83E-04	0.00E+00	2.40E-04	4.14E-04	5.78E-05	1.38E-04	School	0.00	2027
564490_4183830	564490	4183830	2.07E-04	1.97E-04	1.94E-04	0.00E+00	2.45E-04	4.22E-04	5.89E-05	1.40E-04	School	0.00	2027
564510_4183830	564510	4183830	2.19E-04	2.09E-04	2.06E-04	0.00E+00	2.50E-04	4.32E-04	6.03E-05	1.44E-04	School	0.00	2027
564530_4183830	564530	4183830	2.31E-04	2.20E-04	2.17E-04	0.00E+00	2.56E-04	4.42E-04	6.16E-05	1.47E-04	School	0.00	2027
564550_4183830	564550	4183830	2.42E-04	2.31E-04	2.27E-04	0.00E+00	2.61E-04	4.51E-04	6.29E-05	1.50E-04	School	0.00	2027
564570_4183830	564570	4183830	2.51E-04	2.39E-04	2.36E-04	0.00E+00	2.63E-04	4.54E-04	6.33E-05	1.51E-04	potential residence	0.00	2027
564590_4183830	564590	4183830	2.59E-04	2.47E-04	2.43E-04	0.00E+00	2.63E-04	4.54E-04	6.33E-05	1.51E-04	potential residence	0.00	2027
564610_4183830	564610	4183830	2.66E-04	2.54E-04	2.50E-04	0.00E+00	2.64E-04	4.55E-04	6.34E-05	1.51E-04	potential residence	0.00	2027
564630_4183830	564630	4183830	2.74E-04	2.62E-04	2.58E-04	0.00E+00	2.65E-04	4.58E-04	6.38E-05	1.52E-04	potential residence	0.00	2027
564650_4183830	564650	4183830	2.83E-04	2.70E-04	2.66E-04	0.00E+00	2.68E-04	4.62E-04	6.45E-05	1.54E-04	potential residence	0.00	2027
564670_4183830	564670	4183830	2.91E-04	2.78E-04	2.74E-04	0.00E+00	2.79E-04	4.80E-04	6.70E-05	1.60E-04	potential residence	0.00	2027
564690_4183830	564690	4183830	2.97E-04	2.83E-04	2.79E-04	0.00E+00	2.80E-04	4.82E-04	6.73E-05	1.61E-04	potential residence	0.00	2027
564710_4183830	564710	4183830	2.99E-04	2.86E-04	2.81E-04	0.00E+00	2.80E-04	4.83E-04	6.74E-05	1.61E-04	potential residence	0.00	2027
564730_4183830	564730	4183830	3.01E-04	2.88E-04	2.83E-04	0.00E+00	2.80E-04	4.84E-04	6.74E-05	1.61E-04	potential residence	0.00	2027
564750_4183830	564750	4183830	3.15E-04	3.01E-04	2.97E-04	0.00E+00	2.80E-04	4.82E-04	6.73E-05	1.61E-04	potential residence	0.00	2027
564770_4183830	564770	4183830	3.17E-04	3.03E-04	2.98E-04	0.00E+00	2.78E-04	4.79E-04	6.68E-05	1.59E-04	potential residence	0.00	2027
564790_4183830	564790	4183830	3.19E-04	3.05E-04	3.00E-04	0.00E+00	2.75E-04	4.74E-04	6.61E-05	1.58E-04	potential residence	0.00	2027
564810_4183830	564810	4183830	3.21E-04	3.07E-04	3.02E-04	0.00E+00	2.70E-04	4.66E-04	6.50E-05	1.55E-04	potential residence	0.00	2027
564830_4183830	564830	4183830	3.24E-04	3.10E-04	3.05E-04	0.00E+00	2.66E-04	4.59E-04	6.40E-05	1.53E-04	potential residence	0.00	2027
564850_4183830	564850	4183830	3.26E-04	3.12E-04	3.07E-04	0.00E+00	2.61E-04	4.51E-04	6.29E-05	1.50E-04	potential residence	0.00	2027
564870_4183830	564870	4183830	3.27E-04	3.13E-04	3.08E-04	0.00E+00	2.56E-04	4.42E-04	6.16E-05	1.47E-04	potential residence	0.00	2027
564890_4183830	564890	4183830	3.26E-04	3.12E-04	3.07E-04	0.00E+00	2.51E-04	4.33E-04	6.04E-05	1.44E-04	potential residence	0.00	2027
564910_4183830	564910	4183830	3.22E-04	3.08E-04	3.03E-04	0.00E+00	2.44E-04	4.22E-04	5.88E-05	1.40E-04	potential residence	0.00	2027
564930_4183830	564930	4183830	3.19E-04	3.05E-04	3.00E-04	0.00E+00	2.39E-04	4.12E-04	5.74E-05	1.37E-04	potential residence	0.00	2027
564510_4183850	564510	4183850	2.03E-04	1.93E-04	1.90E-04	0.00E+00	2.24E-04	3.87E-04	5.40E-05	1.29E-04	School	0.00	2027
564530_4183850	564530	4183850	2.10E-04	2.00E-04	1.97E-04	0.00E+00	2.27E-04	3.92E-04	5.47E-05	1.30E-04	School	0.00	2027
564550_4183850	564550	4183850	2.19E-04	2.09E-04	2.06E-04	0.00E+00	2.32E-04	4.01E-04	5.59E-05	1.33E-04	School	0.00	2027
564570_4183850	564570	4183850	2.26E-04	2.15E-04	2.12E-04	0.00E+00	2.34E-04	4.03E-04	5.62E-05	1.34E-04	potential residence	0.00	2027
564590_4183850	564590	4183850	2.32E-04	2.21E-04	2.17E-04	0.00E+00	2.33E-04	4.03E-04	5.62E-05	1.34E-04	potential residence	0.00	2027
564610_4183850	564610	4183850	2.37E-04	2.26E-04	2.23E-04	0.00E+00	2.33E-04	4.02E-04	5.61E-05	1.34E-04	potential residence	0.00	2027
564630_4183850	564630	4183850	2.43E-04	2.32E-04	2.29E-04	0.00E+00	2.34E-04	4.03E-04	5.63E-05	1.34E-04	potential residence	0.00	2027
564650_4183850	564650	4183850	2.50E-04	2.38E-04	2.35E-04	0.00E+00	2.35E-04	4.06E-04	5.67E-05	1.35E-04	potential residence	0.00	2027
564670_4183850	564670	4183850	2.56E-04	2.45E-04	2.41E-04	0.00E+00	2.45E-04	4.23E-04	5.89E-05	1.41E-04	potential residence	0.00	2027
564690_4183850	564690	4183850	2.62E-04	2.50E-04	2.46E-04	0.00E+00	2.47E-04	4.26E-04	5.94E-05	1.42E-04	potential residence	0.00	2027
564710_4183850	564710	4183850	2.63E-04	2.51E-04	2.47E-04	0.00E+00	2.48E-04	4.27E-04	5.96E-05	1.42E-04	potential residence	0.00	2027
564730_4183850	564730	4183850	2.64E-04	2.52E-04	2.49E-04	0.00E+00	2.48E-04	4.28E-04	5.97E-05	1.43E-04	potential residence	0.00	2027
564750_4183850	564750	4183850	2.76E-04	2.64E-04	2.60E-04	0.00E+00	2.48E-04	4.28E-04	5.97E-05	1.42E-04	potential residence	0.00	2027
564770_4183850	564770	4183850	2.77E-04	2.65E-04	2.60E-04	0.00E+00	2.47E-04	4.26E-04	5.94E-05	1.42E-04	potential residence	0.00	2027
564790_4183850	564790	4183850	2.78E-04	2.66E-04	2.62E-04	0.00E+00	2.45E-04	4.22E-04	5.89E-05	1.41E-04	potential residence	0.00	2027
564810_4183850	564810	4183850	2.80E-04	2.68E-04	2.64E-04	0.00E+00	2.41E-04	4.17E-04	5.81E-05	1.39E-04	potential residence	0.00	2027
564830_4183850	564830	4183850	2.82E-04	2.70E-04	2.66E-04	0.00E+00	2.38E-04	4.10E-04	5.72E-05	1.37E-04	potential residence	0.00	2027
564850_4183850	564850	4183850	2.85E-04	2.72E-04	2.68E-04	0.00E+00	2.34E-04	4.04E-04	5.63E-05	1.34E-04	potential residence	0.00	2027
564870_4183850	564870	4183850	2.86E-04	2.73E-04	2.69E-04	0.00E+00	2.30E-04	3.97E-04	5.54E-05	1.32E-04	potential residence	0.00	2027
564890_4183850	564890	4183850	2.86E-04	2.73E-04	2.69E-04	0.00E+00	2.26E-04	3.90E-04	5.44E-05	1.30E-04	potential residence	0.00	2027
564910_4183850	564910	4183850	2.84E-04	2.71E-04	2.67E-04	0.00E+00	2.21E-04	3.82E-04	5.32E-05	1.27E-04	potential residence	0.00	2027
564550_4183870	564550	4183870	1.99E-04	1.89E-04	1.86E-04	0.00E+00	2.08E-04	3.59E-04	5.01E-05	1.19E-04	School	0.00	2027
564570_4183870	564570	4183870	2.03E-04	1.94E-04	1.91E-04	0.00E+00	2.08E-04	3.59E-04	5.01E-05	1.20E-04	potential residence	0.00	2027
564590_4183870	564590	4183870	2.08E-04	1.98E-04	1.95E-04	0.00E+00	2.08E-04	3.58E-04	5.00E-05	1.19E-04	potential residence	0.00	2027
564610_4183870	564610	4183870	2.12E-04	2.02E-04	1.99E-04	0.00E+00	2.07E-04	3.57E-04	4.98E-05	1.19E-04	potential residence	0.00	2027
564630_4183870	564630	4183870	2.17E-04	2.07E-04	2.04E-04	0.00E+00	2.07E-04	3.58E-04	4.99E-05	1.19E-04	potential residence	0.00	2027
564650_4183870	564650	4183870	2.22E-04	2.12E-04	2.09E-04	0.00E+00	2.08E-04	3.59E-04	5.01E-05	1.20E-04	potential residence	0.00	2027
564670_4183870	564670	4183870	2.28E-04	2.17E-04	2.14E-04	0.00E+00	2.11E-04	3.64E-04	5.08E-05	1.21E-04	potential residence	0.00	2027
564690_4183870	564690	4183870	2.33E-04	2.22E-04	2.19E-04	0.00E+00	2.20E-04	3.79E-04	5.29E-05	1.26E-04	potential residence	0.00	2027
564710_4183870	564710	4183870	2.34E-04	2.24E-04	2.20E-04	0.00E+00	2.21E-04	3.81E-04	5.31E-05	1.27E-04	potential residence	0.00	2027
564730_4183870	564730	4183870	2.35E-04	2.24E-04	2.20E-04	0.00E+00	2.22E-04	3.82E-04	5.33E-05	1.27E-04	potential residence	0.00	2027
564750_4183870	564750	4183870	2.44E-04	2.33E-04	2.29E-04	0.00E+00	2.22E-04	3.82E-04	5.33E-05	1.27E-04	potential residence	0.00	2027
564770_4183870	564770	4183870	2.44E-04	2.33E-04	2.29E-04	0.00E+00	2.21E-04	3.81E-04	5.31E-05	1.27E-04	potential residence	0.00	2027
564790_4183870	564790	4183870	2.45E-04	2.34E-04	2.30E-04	0.00E+00	2.19E-04	3.78E-04	5.27E-05	1.26E-04	potential residence	0.00	2027
564810_4183870	564810	4183870	2.47E-04	2.36E-04	2.33E-04	0.00E+00	2.17E-04	3.75E-04	5.23E-05	1.25E-04	potential residence	0.00	2027
564830_4183870	564830	4183870	2.49E-04	2.38E-04	2.34E-04	0.00E+00	2.14E-04	3.70E-04	5.16E-05	1.23E-04	potential residence	0.00	2027
564850_4183870	564850	4183870	2.51E-04	2.40E-04	2.36E-04	0.00E+00	2.11E-04	3.64E-04	5.08E-05	1.21E-04	potential residence	0.00	2027
564870_4183870	564870	4183870	2.52E-04	2.41E-04	2.37E-04	0.00E+00	2.08E-04	3.59E-04	5.01E-05	1.19E-04	potential residence	0.00	2027
564590_4183890	564590	4183890	1.87E-04	1.79E-04	1.76E-04	0.00E+00	1.87E-04	3.22E-04	4.49E-05	1.07E-04	potential residence	0.00	2027
564610_4183890	564610	4183890	1.91E-04	1.82E-04	1.80E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	potential residence	0.00	2027
564630_4183890	564630	4183890	1.96E-04	1.87E-04	1.84E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	potential residence	0.00	2027
564650_4183890	564650	4183890	2.02E-04	1.92E-04	1.89E-04	0.00E+00	1.94E-04	3.35E-04	4.68E-05	1.12E-04	potential residence	0.00	2027
564670_4183890	564670	4183890	2.05E-04	1.95E-04	1.92E-04	0.00E+00	1.95E-04	3.36E-04	4.69E-05	1.12E-04	potential residence	0.00	2027
564690_4183890	564690	4183890	2.08E-04	1.99E-04	1.96E-04	0.00E+00	1.96E-04	3.39E-04	4.73E-05	1.13E-04	potential residence	0.00	2027
564710_4183890	564710	4183890	2.09E-04	1.99E-04	1.96E-04	0.00E+00	1.98E-04	3.41E-04	4.76E-05	1.13E-04	potential residence	0.00	2027
564730_4183890	564730	4183890	2.09E-04	1.99E-04	1.96E-04	0.00E+00	1.98E-04	3.42E-04	4.78E-05	1.14E-04	potential residence	0.00	2027
564750_4183890	564750	4183890	2.16E-04	2.07E-04	2.03E-04	0.00E+00	1.99E-04	3.43E-04	4.78E-05	1.14E-04	potential residence	0.00	2027
564770_4183890	564770	4183890	2.16E-04	2.07E-04	2.03E-04	0.00E+00	1.98E-04	3.42E-04	4.77E-05	1.14E-04	potential residence	0.00	2027
564790_4183890	564790	4183890	2.18E-04	2.08E-04	2.05E-04	0.00E+00	1.98E-04	3.41E-04	4.76E-05	1.14E-04	potential residence	0.00	2027
564810_4183890	564810	4183890	2.20E-04	2.10E-04	2.06E-04	0.00E+00	1.97E-04	3.39E-04	4.73E-05	1.13E-04	potential residence	0.00	2027
564830_4183890	564830	4183890	2.21E-04	2.11E-04	2.08E-04	0.00E+00	1.94E-04	3.35E-04	4.68E-05	1.12E-04	potential residence	0.00	2027
564850_4183890	564850	4183890	2.23E-04	2.13E-04	2.10E-04	0.00E+00	1.92E-04	3.31E-04	4.61E-05	1.10E-04	potential residence	0.00	2027
564630_4183910	564630	4183910	1.78E-04	1.70E-04	1.67E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.65E-05	potential residence	0.00	2027
564650_4183910	564650	4183910	1.83E-04	1.74E-04	1.72E-04	0.00E+00	1.75E-04	3.02E-04	4.22E-05	1.01E-04	potential residence	0.00	2027
564670_4183910	564670	4183910	1.85E-04	1.77E-04	1.74E-04	0.00E+00	1.75E-04	3.03E-04	4.22E-05	1.01E-04	potential residence	0.00	2027
564690_4183910	564690	4183910	1.87E-04	1.78E-04	1.76E-04	0.00E+00	1.77E-04	3.05E-04	4.25E-05	1.01E-04	potential residence	0.00	2027
564710_4183910	564710	4183910	1.88E-04	1.79E-04	1.76E-04	0.00E+00	1.78E-04	3.07E-04	4.28E-05	1.02E-04	potential residence	0.00	2027
564730_4183910	564730	4183910	1.87E-04	1.78E-04	1.76E-04	0.00E+00	1.79E-04	3.08E-04	4.30E-05	1.03E-04	potential residence	0.00	2027
564750_4183910	564750	4183910	1.94E-04	1.85E-04	1.82E-04	0.00E+00	1.79E-04	3.09E-04	4.31E-05	1.03E-04	potential residence	0.00	2027
564770_4183910	564770	4183910	1.94E-04	1.85E-04	1.82E-04	0.00E+00	1.80E-04	3.10E-04	4.32E-05	1.03E-04	potential residence	0.00	2027
564790_4183910	564790	4183910	1.95E-04	1.86E-04	1.83E-04	0.00E+00	1.79E-04	3.09E-04	4.31E-05	1.03E-04	potential residence	0.00	2027
564810_4183910	564810	4183910	1.96E-04	1.87E-04	1.84E-04	0.00E+00	1.78E-04	3.07E-04	4.29E-05	1.02E-04	potential residence	0.00	2027
564610_4183910	564610	4183910	1.74E-04	1.65E-04	1.63E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.64E-05	potential residence	0.00	2027
564590_4183910	564590	4183910	1.70E-04	1.62E-04	1.59E-04	0.00E+00	1.69E-04	2.91E-04	4.06E-05	9.68E-05	potential residence	0.00	2027
564570_4183910	564570	4183910	1.67E-04	1.59E-04	1.56E-04	0.00E+00	1.69E-04	2.91E-04	4.07E-05	9.70E-05	potential residence	0.00	2027
564550_4183910	564550	4183910	1.66E-04	1.58E-04	1.56E-04	0.00E+00	1.77E-04	3.06E-04	4.27E-05	1.02E-04	potential residence	0.00	2027
564530_4183910	564530	4183910	1.62E-04	1.54E-04	1.52E-04	0.00E+00	1.70E-04	2.93E-04	4.09E-05	9.74E-05	potential residence	0.00	2027
564510_4183910	564510	4183910	1.58E-04	1.50E-04	1.48E-04	0.00E+00	1.66E-04	2.86E-04	3.99E-05	9.52E-05	potential residence	0.00	2027
564490_4183910	564490	4183910	1.53E-04	1.46E-04	1.44E-04	0.00E+00	1.63E-04	2.80E-04	3.91E-05	9.33E-05	potential residence	0.00	2027
564470_4183910	564470	4183910	1.48E-04	1.41E-04	1.39E-04	0.00E+00	1.59E-04	2.75E-04	3.83E-05	9.13E-05	School	0.00	2027
564450_4183910	564450	4183910	1.43E-04	1.36E-04	1.34E-04	0.00E+00	1.56E-04	2.70E-04	3.76E-05	8.97E-05	School	0.00	2027
564430_4183910	564430	4183910	1.36E-04	1.30E-04	1.28E-04	0.00E+00	1.53E-04	2.64E-04	3.69E-05	8.79E-05	potential residence	0.00	2027
564410_4183910	564410	4183910	1.30E-04	1.24E-04	1.22E-04	0.00E+00	1.51E-04	2.61E-04	3.64E-05	8.67E-05	potential residence	0.00	2027
564390_4183910	564390	4183910	1.24E-04	1.18E-04	1.16E-04	0.00E+00	1.49E-04	2.57E-04	3.59E-05	8.55E-05	potential residence	0.00	2027
564370_4183910	564370	4183910	1.18E-04	1.12E-04	1.10E-04	0.00E+00	1.47E-04	2.53E-04	3.53E-05	8.42E-05	potential residence	0.00	2027
564350_4183910	564350	4183910	1.13E-04	1.07E-04	1.05E-04	0.00E+00	1.44E-04	2.49E-04	3.47E-05	8.28E-05	potential residence	0.00	2027
564570_4183890	564570	4183890	1.84E-04	1.75E-04	1.73E-04	0.00E+00	1.87E-04	3.23E-04	4.51E-05	1.08E-04	potential residence	0.00	2027
564550_4183890	564550	4183890	1.80E-04	1.72E-04	1.69E-04	0.00E+00	1.87E-04	3.22E-04	4.50E-05	1.07E-04	potential residence	0.00	2027
564530_4183890	564530	4183890	1.76E-04	1.68E-04	1.65E-04	0.00E+00	1.86E-04	3.20E-04	4.47E-05	1.07E-04	potential residence	0.00	2027
564510_4183890	564510	4183890	1.71E-04	1.63E-04	1.61E-04	0.00E+00	1.82E-04	3.15E-04	4.39E-05	1.05E-04	School	0.00	2027

Particulate Matter concentration, $C_{PM2.5}$ (ug/m^3)

Mitigated $PM_{2.5}$ Annual Average Concentra

Lookup	X (UTM)	Y (UTM	Mitigated								Receptor Type	$PM_{2.5}$ Concentration	
			2022	2023	2024	2025	2026	2027	2028	2029		Max	Max Year
564490_4183890	564490	4183890	1.65E-04	1.57E-04	1.55E-04	0.00E+00	1.78E-04	3.07E-04	4.28E-05	1.02E-04	School	0.00	2027
564470_4183890	564470	4183890	1.59E-04	1.51E-04	1.49E-04	0.00E+00	1.74E-04	3.01E-04	4.20E-05	1.00E-04	School	0.00	2027
564450_4183890	564450	4183890	1.53E-04	1.45E-04	1.43E-04	0.00E+00	1.72E-04	2.96E-04	4.14E-05	9.86E-05	School	0.00	2027
564430_4183890	564430	4183890	1.45E-04	1.38E-04	1.35E-04	0.00E+00	1.68E-04	2.90E-04	4.05E-05	9.64E-05	potential residence	0.00	2027
564410_4183890	564410	4183890	1.38E-04	1.31E-04	1.29E-04	0.00E+00	1.66E-04	2.86E-04	3.99E-05	9.51E-05	potential residence	0.00	2027
564390_4183890	564390	4183890	1.30E-04	1.24E-04	1.22E-04	0.00E+00	1.63E-04	2.81E-04	3.92E-05	9.34E-05	potential residence	0.00	2027
564370_4183890	564370	4183890	1.24E-04	1.18E-04	1.16E-04	0.00E+00	1.60E-04	2.77E-04	3.86E-05	9.20E-05	potential residence	0.00	2027
564350_4183890	564350	4183890	1.18E-04	1.11E-04	1.10E-04	0.00E+00	1.57E-04	2.71E-04	3.78E-05	9.00E-05	potential residence	0.00	2027
564530_4183870	564530	4183870	1.92E-04	1.83E-04	1.80E-04	0.00E+00	2.04E-04	3.53E-04	4.92E-05	1.17E-04	School	0.00	2027
564510_4183870	564510	4183870	1.85E-04	1.76E-04	1.74E-04	0.00E+00	2.00E-04	3.45E-04	4.82E-05	1.15E-04	School	0.00	2027
564490_4183870	564490	4183870	1.78E-04	1.70E-04	1.67E-04	0.00E+00	1.96E-04	3.39E-04	4.73E-05	1.13E-04	School	0.00	2027
564470_4183870	564470	4183870	1.71E-04	1.62E-04	1.60E-04	0.00E+00	1.93E-04	3.33E-04	4.64E-05	1.11E-04	School	0.00	2027
564450_4183870	564450	4183870	1.63E-04	1.55E-04	1.52E-04	0.00E+00	1.89E-04	3.27E-04	4.56E-05	1.09E-04	School	0.00	2027
564430_4183870	564430	4183870	1.54E-04	1.46E-04	1.44E-04	0.00E+00	1.86E-04	3.21E-04	4.48E-05	1.07E-04	School	0.00	2027
564410_4183870	564410	4183870	1.45E-04	1.38E-04	1.36E-04	0.00E+00	1.83E-04	3.15E-04	4.40E-05	1.05E-04	potential residence	0.00	2027
564390_4183870	564390	4183870	1.38E-04	1.30E-04	1.28E-04	0.00E+00	1.80E-04	3.10E-04	4.33E-05	1.03E-04	potential residence	0.00	2027
564370_4183870	564370	4183870	1.29E-04	1.23E-04	1.21E-04	0.00E+00	1.75E-04	3.02E-04	4.21E-05	1.00E-04	potential residence	0.00	2027
564350_4183870	564350	4183870	1.22E-04	1.15E-04	1.14E-04	0.00E+00	1.70E-04	2.93E-04	4.09E-05	9.74E-05	Daycare	0.00	2027
564330_4183870	564330	4183870	1.15E-04	1.09E-04	1.07E-04	0.00E+00	1.63E-04	2.82E-04	3.94E-05	9.38E-05	Daycare	0.00	2027
564490_4183850	564490	4183850	1.93E-04	1.83E-04	1.81E-04	0.00E+00	2.19E-04	3.77E-04	5.27E-05	1.26E-04	School	0.00	2027
564470_4183850	564470	4183850	1.83E-04	1.73E-04	1.71E-04	0.00E+00	2.14E-04	3.68E-04	5.14E-05	1.23E-04	School	0.00	2027
564450_4183850	564450	4183850	1.73E-04	1.64E-04	1.62E-04	0.00E+00	2.10E-04	3.62E-04	5.06E-05	1.21E-04	School	0.00	2027
564430_4183850	564430	4183850	1.63E-04	1.55E-04	1.52E-04	0.00E+00	2.06E-04	3.56E-04	4.97E-05	1.18E-04	School	0.00	2027
564410_4183850	564410	4183850	1.53E-04	1.45E-04	1.43E-04	0.00E+00	2.02E-04	3.48E-04	4.86E-05	1.16E-04	potential residence	0.00	2027
564390_4183850	564390	4183850	1.43E-04	1.36E-04	1.34E-04	0.00E+00	1.97E-04	3.39E-04	4.74E-05	1.13E-04	potential residence	0.00	2027
564370_4183850	564370	4183850	1.34E-04	1.27E-04	1.25E-04	0.00E+00	1.90E-04	3.28E-04	4.58E-05	1.09E-04	potential residence	0.00	2027
564350_4183850	564350	4183850	1.26E-04	1.19E-04	1.17E-04	0.00E+00	1.83E-04	3.15E-04	4.40E-05	1.05E-04	Daycare	0.00	2027
564330_4183850	564330	4183850	1.18E-04	1.11E-04	1.10E-04	0.00E+00	1.75E-04	3.02E-04	4.22E-05	1.00E-04	Daycare	0.00	2027
564310_4183850	564310	4183850	1.12E-04	1.05E-04	1.04E-04	0.00E+00	1.68E-04	2.89E-04	4.04E-05	9.62E-05	Daycare	0.00	2027
564450_4183830	564450	4183830	1.83E-04	1.74E-04	1.71E-04	0.00E+00	2.34E-04	4.04E-04	5.64E-05	1.34E-04	potential residence	0.00	2027
564430_4183830	564430	4183830	1.71E-04	1.62E-04	1.60E-04	0.00E+00	2.29E-04	3.95E-04	5.52E-05	1.32E-04	potential residence	0.00	2027
564410_4183830	564410	4183830	1.60E-04	1.51E-04	1.49E-04	0.00E+00	2.23E-04	3.85E-04	5.37E-05	1.28E-04	potential residence	0.00	2027
564390_4183830	564390	4183830	1.49E-04	1.41E-04	1.38E-04	0.00E+00	2.15E-04	3.71E-04	5.18E-05	1.23E-04	potential residence	0.00	2027
564370_4183830	564370	4183830	1.39E-04	1.31E-04	1.29E-04	0.00E+00	2.06E-04	3.56E-04	4.97E-05	1.19E-04	potential residence	0.00	2027
564350_4183830	564350	4183830	1.30E-04	1.22E-04	1.21E-04	0.00E+00	1.97E-04	3.41E-04	4.76E-05	1.13E-04	Daycare	0.00	2027
564330_4183830	564330	4183830	1.21E-04	1.14E-04	1.12E-04	0.00E+00	1.87E-04	3.23E-04	4.51E-05	1.07E-04	Daycare	0.00	2027
564310_4183830	564310	4183830	1.15E-04	1.08E-04	1.06E-04	0.00E+00	1.79E-04	3.08E-04	4.30E-05	1.02E-04	Daycare	0.00	2027
564430_4183810	564430	4183810	1.79E-04	1.70E-04	1.67E-04	0.00E+00	2.55E-04	4.41E-04	6.15E-05	1.47E-04	potential residence	0.00	2027
564410_4183810	564410	4183810	1.67E-04	1.58E-04	1.56E-04	0.00E+00	2.48E-04	4.27E-04	5.97E-05	1.42E-04	potential residence	0.00	2027
564390_4183810	564390	4183810	1.54E-04	1.45E-04	1.43E-04	0.00E+00	2.36E-04	4.07E-04	5.68E-05	1.35E-04	potential residence	0.00	2027
564370_4183810	564370	4183810	1.44E-04	1.35E-04	1.33E-04	0.00E+00	2.25E-04	3.89E-04	5.43E-05	1.29E-04	potential residence	0.00	2027
564350_4183810	564350	4183810	1.34E-04	1.26E-04	1.24E-04	0.00E+00	2.14E-04	3.69E-04	5.15E-05	1.23E-04	potential residence	0.00	2027
564330_4183810	564330	4183810	1.26E-04	1.18E-04	1.16E-04	0.00E+00	2.02E-04	3.48E-04	4.87E-05	1.16E-04	Daycare	0.00	2027
564390_4183790	564390	4183790	1.60E-04	1.51E-04	1.49E-04	0.00E+00	2.61E-04	4.50E-04	6.29E-05	1.50E-04	potential residence	0.00	2027
564370_4183790	564370	4183790	1.49E-04	1.40E-04	1.38E-04	0.00E+00	2.46E-04	4.25E-04	5.93E-05	1.41E-04	potential residence	0.00	2027
565230_4183390	565230	4183390	7.76E-04	7.39E-04	7.27E-04	0.00E+00	5.29E-04	9.12E-04	1.28E-04	3.03E-04	Daycare	0.00	2027
565250_4183390	565250	4183390	7.26E-04	6.91E-04	6.80E-04	0.00E+00	5.01E-04	8.64E-04	1.21E-04	2.87E-04	Daycare	0.00	2027
565230_4183370	565230	4183370	7.63E-04	7.25E-04	7.14E-04	0.00E+00	5.23E-04	9.02E-04	1.26E-04	3.00E-04	Daycare	0.00	2027
565250_4183370	565250	4183370	7.15E-04	6.80E-04	6.70E-04	0.00E+00	4.95E-04	8.55E-04	1.20E-04	2.84E-04	Daycare	0.00	2027
565230_4183350	565230	4183350	7.49E-04	7.12E-04	7.01E-04	0.00E+00	5.19E-04	8.95E-04	1.25E-04	2.98E-04	Daycare	0.00	2027
565250_4183350	565250	4183350	7.05E-04	6.70E-04	6.60E-04	0.00E+00	4.92E-04	8.49E-04	1.19E-04	2.82E-04	Daycare	0.00	2027

Health Risk Assessment: Mitigated Operational HRA

All Receptors - Operational Risk Cancer Risk + PM2.5
Emergency Generator Testing/Maintenance

				Days				DPM (tons)	$PM_{2.5}$ (tons)
Operation	Generator	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Age 16<30	Annual O&M	Annual O&M
O&M	1	Annual		91	730	5110	5110	4.53E-03	4.53E-03
O&M	2			91	730	5110	5110	4.53E-03	4.53E-03

				DPM (g/s)	$PM_{2.5}$ (g/s)
Construction Year	Phase	Start Date	End Date	Annual O&M	Annual O&M
O&M	1	Annual		1.30E-04	1.30E-04
O&M	2			1.30E-04	1.30E-04

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	2<16	16<30
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572	261
Fraction Of Time At Home	FAH	unitless	1	1	1	0.73
Exposure Frequency	EF	days/year	0.96	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3	1
Inhalation Absorption Factor	A	unitless	1	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001	0.001
Cancer Potency Factor (diesel exhau	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1	1.1
Averaging Time (for residential expo	AT	years	70.00	70.00	70	70

Intake Factor for Inhalation, IF (m^3/kg-day)

	Year	Equation	3rd Trimester	0<2	2<16	16<30
Generator O&M	Annual	DBR*FAH*EF*ED*ASF*A*CF/AT	0.012	0.299	0.329	0.037

Risk Calculation Part 1, R1

Year		3rd Trimester	0<2	2<16	16<30
Annual	IF*CPF*CF	1.36E-05	3.28E-04	3.62E-04	4.02E-05

Risk Factors

	Abbreviation	UOM	
Chronic Inhalation	REL	ug/m^3	5

MAX	Max Risk	UTM X	UTM Y	receptor type
Cancer	5.28	564770	4183550	Building A
HI	0.00	564770	4183550	Building A
$PM_{2.5}$	0.01	564770	4183550	Building A

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) / Risk Calculation Part 2 / HI / PM2.5

			Annual O&M			Receptor Type	$\sum R1*C_{DPM}$					C_{DPM}/REL	Annual O&M		
Lookup	X (UTM)	Y (UTM	Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total		Bldg A	Bldg C	Total
564550_4183170	564550	4183170	1.60E-04	1.79E-04	3.39E-04	potential residence	4.60E-09	1.12E-07	1.23E-07	1.36E-08	0.25	0.00	1.60E-04	1.79E-04	3.39E-04
564570_4183170	564570	4183170	1.53E-04	1.82E-04	3.34E-04	potential residence	4.53E-09	1.10E-07	1.21E-07	1.34E-08	0.25	0.00	1.53E-04	1.82E-04	3.34E-04
564590_4183170	564590	4183170	1.53E-04	1.80E-04	3.33E-04	potential residence	4.52E-09	1.09E-07	1.21E-07	1.34E-08	0.25	0.00	1.53E-04	1.80E-04	3.33E-04
564610_4183170	564610	4183170	1.50E-04	1.82E-04	3.33E-04	potential residence	4.51E-09	1.09E-07	1.20E-07	1.34E-08	0.25	0.00	1.50E-04	1.82E-04	3.33E-04
564630_4183170	564630	4183170	1.51E-04	1.84E-04	3.34E-04	potential residence	4.53E-09	1.10E-07	1.21E-07	1.34E-08	0.25	0.00	1.51E-04	1.84E-04	3.34E-04
564650_4183170	564650	4183170	1.55E-04	1.82E-04	3.37E-04	potential residence	4.57E-09	1.11E-07	1.22E-07	1.35E-08	0.25	0.00	1.55E-04	1.82E-04	3.37E-04
564670_4183170	564670	4183170	1.55E-04	1.91E-04	3.46E-04	potential residence	4.69E-09	1.14E-07	1.25E-07	1.39E-08	0.26	0.00	1.55E-04	1.91E-04	3.46E-04
564690_4183170	564690	4183170	1.57E-04	1.92E-04	3.49E-04	potential residence	4.73E-09	1.15E-07	1.26E-07	1.40E-08	0.26	0.00	1.57E-04	1.92E-04	3.49E-04
564510_4183190	564510	4183190	1.75E-04	1.91E-04	3.66E-04	potential residence	4.96E-09	1.20E-07	1.32E-07	1.47E-08	0.27	0.00	1.75E-04	1.91E-04	3.66E-04
564530_4183190	564530	4183190	1.70E-04	1.91E-04	3.61E-04	potential residence	4.89E-09	1.18E-07	1.31E-07	1.45E-08	0.27	0.00	1.70E-04	1.91E-04	3.61E-04
564550_4183190	564550	4183190	1.67E-04	1.88E-04	3.55E-04	potential residence	4.82E-09	1.17E-07	1.29E-07	1.43E-08	0.26	0.00	1.67E-04	1.88E-04	3.55E-04
564570_4183190	564570	4183190	1.63E-04	1.90E-04	3.53E-04	potential residence	4.79E-09	1.16E-07	1.28E-07	1.42E-08	0.26	0.00	1.63E-04	1.90E-04	3.53E-04
564590_4183190	564590	4183190	1.57E-04	1.89E-04	3.47E-04	potential residence	4.70E-09	1.14E-07	1.25E-07	1.39E-08	0.26	0.00	1.57E-04	1.89E-04	3.47E-04
564610_4183190	564610	4183190	1.59E-04	1.92E-04	3.50E-04	potential residence	4.75E-09	1.15E-07	1.27E-07	1.41E-08	0.26	0.00	1.59E-04	1.92E-04	3.50E-04
564630_4183190	564630	4183190	1.56E-04	1.93E-04	3.50E-04	potential residence	4.74E-09	1.15E-07	1.27E-07	1.40E-08	0.26	0.00	1.56E-04	1.93E-04	3.50E-04
564650_4183190	564650	4183190	1.61E-04	1.95E-04	3.56E-04	potential residence	4.83E-09	1.17E-07	1.29E-07	1.43E-08	0.27	0.00	1.61E-04	1.95E-04	3.56E-04
564670_4183190	564670	4183190	1.62E-04	2.01E-04	3.62E-04	potential residence	4.91E-09	1.19E-07	1.31E-07	1.46E-08	0.27	0.00	1.62E-04	2.01E-04	3.62E-04
564690_4183190	564690	4183190	1.63E-04	2.05E-04	3.68E-04	potential residence	4.99E-09	1.21E-07	1.33E-07	1.48E-08	0.27	0.00	1.63E-04	2.05E-04	3.68E-04
564710_4183190	564710	4183190	1.64E-04	2.10E-04	3.74E-04	potential residence	5.07E-09	1.23E-07	1.35E-07	1.50E-08	0.28	0.00	1.64E-04	2.10E-04	3.74E-04
564730_4183190	564730	4183190	1.63E-04	2.18E-04	3.81E-04	potential residence	5.17E-09	1.25E-07	1.38E-07	1.53E-08	0.28	0.00	1.63E-04	2.18E-04	3.81E-04
564470_4183210	564470	4183210	1.91E-04	2.06E-04	3.96E-04	potential residence	5.38E-09	1.30E-07	1.44E-07	1.59E-08	0.30	0.00	1.91E-04	2.06E-04	3.96E-04
564490_4183210	564490	4183210	1.89E-04	2.04E-04	3.93E-04	potential residence	5.34E-09	1.29E-07	1.42E-07	1.58E-08	0.29	0.00	1.89E-04	2.04E-04	3.93E-04
564510_4183210	564510	4183210	1.90E-04	2.02E-04	3.91E-04	potential residence	5.30E-09	1.28E-07	1.42E-07	1.57E-08	0.29	0.00	1.90E-04	2.02E-04	3.91E-04
564530_4183210	564530	4183210	1.82E-04	1.99E-04	3.82E-04	potential residence	5.18E-09	1.25E-07	1.38E-07	1.53E-08	0.28	0.00	1.82E-04	1.99E-04	3.82E-04
564550_4183210	564550	4183210	1.79E-04	2.01E-04	3.80E-04	potential residence	5.15E-09	1.25E-07	1.38E-07	1.53E-08	0.28	0.00	1.79E-04	2.01E-04	3.80E-04
564570_4183210	564570	4183210	1.73E-04	1.99E-04	3.72E-04	potential residence	5.05E-09	1.22E-07	1.35E-07	1.50E-08	0.28	0.00	1.73E-04	1.99E-04	3.72E-04
564590_4183210	564590	4183210	1.69E-04	1.99E-04	3.69E-04	potential residence	5.00E-09	1.21E-07	1.33E-07	1.48E-08	0.27	0.00	1.69E-04	1.99E-04	3.69E-04
564610_4183210	564610	4183210	1.64E-04	2.05E-04	3.69E-04	potential residence	5.00E-09	1.21E-07	1.34E-07	1.48E-08	0.27	0.00	1.64E-04	2.05E-04	3.69E-04
564630_4183210	564630	4183210	1.64E-04	2.05E-04	3.70E-04	potential residence	5.01E-09	1.21E-07	1.34E-07	1.49E-08	0.28	0.00	1.64E-04	2.05E-04	3.70E-04
564650_4183210	564650	4183210	1.65E-04	2.08E-04	3.74E-04	potential residence	5.07E-09	1.23E-07	1.35E-07	1.50E-08	0.28	0.00	1.65E-04	2.08E-04	3.74E-04
564670_4183210	564670	4183210	1.69E-04	2.13E-04	3.82E-04	potential residence	5.19E-09	1.26E-07	1.38E-07	1.54E-08	0.28	0.00	1.69E-04	2.13E-04	3.82E-04
564690_4183210	564690	4183210	1.70E-04	2.15E-04	3.86E-04	potential residence	5.23E-09	1.27E-07	1.40E-07	1.55E-08	0.29	0.00	1.70E-04	2.15E-04	3.86E-04
564430_4183230	564430	4183230	1.94E-04	2.17E-04	4.11E-04	potential residence	5.57E-09	1.35E-07	1.49E-07	1.65E-08	0.31	0.00	1.94E-04	2.17E-04	4.11E-04
564450_4183230	564450	4183230	1.95E-04	2.22E-04	4.17E-04	potential residence	5.66E-09	1.37E-07	1.51E-07	1.68E-08	0.31	0.00	1.95E-04	2.22E-04	4.17E-04
564470_4183230	564470	4183230	1.98E-04	2.22E-04	4.20E-04	potential residence	5.70E-09	1.38E-07	1.52E-07	1.69E-08	0.31	0.00	1.98E-04	2.22E-04	4.20E-04
564490_4183230	564490	4183230	1.99E-04	2.17E-04	4.16E-04	potential residence	5.64E-09	1.37E-07	1.51E-07	1.67E-08	0.31	0.00	1.99E-04	2.17E-04	4.16E-04
564510_4183230	564510	4183230	1.96E-04	2.17E-04	4.13E-04	potential residence	5.60E-09	1.36E-07	1.50E-07	1.66E-08	0.31	0.00	1.96E-04	2.17E-04	4.13E-04
564530_4183230	564530	4183230	1.97E-04	2.14E-04	4.12E-04	potential residence	5.59E-09	1.35E-07	1.49E-07	1.66E-08	0.31	0.00	1.97E-04	2.14E-04	4.12E-04
564550_4183230	564550	4183230	1.91E-04	2.15E-04	4.06E-04	potential residence	5.51E-09	1.33E-07	1.47E-07	1.63E-08	0.30	0.00	1.91E-04	2.15E-04	4.06E-04
564570_4183230	564570	4183230	1.83E-04	2.11E-04	3.94E-04	potential residence	5.34E-09	1.29E-07	1.43E-07	1.58E-08	0.29	0.00	1.83E-04	2.11E-04	3.94E-04
564590_4183230	564590	4183230	1.79E-04	2.14E-04	3.93E-04	potential residence	5.32E-09	1.29E-07	1.42E-07	1.58E-08	0.29	0.00	1.79E-04	2.14E-04	3.93E-04
564610_4183230	564610	4183230	1.79E-04	2.18E-04	3.97E-04	potential residence	5.38E-09	1.30E-07	1.44E-07	1.60E-08	0.30	0.00	1.79E-04	2.18E-04	3.97E-04
564630_4183230	564630	4183230	1.72E-04	2.19E-04	3.91E-04	potential residence	5.30E-09	1.28E-07	1.42E-07	1.57E-08	0.29	0.00	1.72E-04	2.19E-04	3.91E-04
564650_4183230	564650	4183230	1.72E-04	2.21E-04	3.93E-04	potential residence	5.34E-09	1.29E-07	1.42E-07	1.58E-08	0.29	0.00	1.72E-04	2.21E-04	3.93E-04
564670_4183230	564670	4183230	1.77E-04	2.27E-04	4.04E-04	potential residence	5.49E-09	1.33E-07	1.46E-07	1.63E-08	0.30	0.00	1.77E-04	2.27E-04	4.04E-04
564390_4183250	564390	4183250	2.06E-04	2.45E-04	4.51E-04	potential residence	6.12E-09	1.48E-07	1.63E-07	1.81E-08	0.34	0.00	2.06E-04	2.45E-04	4.51E-04
564410_4183250	564410	4183250	2.03E-04	2.41E-04	4.45E-04	potential residence	6.03E-09	1.46E-07	1.61E-07	1.79E-08	0.33	0.00	2.03E-04	2.41E-04	4.45E-04
564430_4183250	564430	4183250	2.01E-04	2.36E-04	4.38E-04	potential residence	5.93E-09	1.44E-07	1.58E-07	1.76E-08	0.33	0.00	2.01E-04	2.36E-04	4.38E-04
564450_4183250	564450	4183250	2.00E-04	2.33E-04	4.34E-04	potential residence	5.88E-09	1.43E-07	1.57E-07	1.74E-08	0.32	0.00	2.00E-04	2.33E-04	4.34E-04
564470_4183250	564470	4183250	2.02E-04	2.37E-04	4.39E-04	potential residence	5.95E-09	1.44E-07	1.59E-07	1.76E-08	0.33	0.00	2.02E-04	2.37E-04	4.39E-04
564490_4183250	564490	4183250	2.07E-04	2.37E-04	4.44E-04	potential residence	6.02E-09	1.46E-07	1.61E-07	1.78E-08	0.33	0.00	2.07E-04	2.37E-04	4.44E-04
564510_4183250	564510	4183250	2.07E-04	2.32E-04	4.38E-04	potential residence	5.95E-09	1.44E-07	1.59E-07	1.76E-08	0.33	0.00	2.07E-04	2.32E-04	4.38E-04
564530_4183250	564530	4183250	2.05E-04	2.31E-04	4.36E-04	potential residence	5.91E-09	1.43E-07	1.58E-07	1.75E-08	0.32	0.00	2.05E-04	2.31E-04	4.36E-04
564550_4183250	564550	4183250	2.06E-04	2.29E-04	4.35E-04	potential residence	5.90E-09	1.43E-07	1.58E-07	1.75E-08	0.32	0.00	2.06E-04	2.29E-04	4.35E-04
564570_4183250	564570	4183250	1.96E-04	2.30E-04	4.26E-04	potential residence	5.77E-09	1.40E-07	1.54E-07	1.71E-08	0.32	0.00	1.96E-04	2.30E-04	4.26E-04
564590_4183250	564590	4183250	1.93E-04	2.30E-04	4.23E-04	potential residence	5.73E-09	1.39E-07	1.53E-07	1.70E-08	0.31	0.00	1.93E-04	2.30E-04	4.23E-04
564610_4183250	564610	4183250	1.88E-04	2.33E-04	4.21E-04	potential residence	5.71E-09	1.38E-07	1.52E-07	1.69E-08	0.31	0.00	1.88E-04	2.33E-04	4.21E-04
564630_4183250	564630	4183250	1.83E-04	2.34E-04	4.17E-04	potential residence	5.66E-09	1.37E-07	1.51E-07	1.68E-08	0.31	0.00	1.83E-04	2.34E-04	4.17E-04
564650_4183250	564650	4183250	1.82E-04	2.36E-04	4.18E-04	potential residence	5.67E-09	1.37E-07	1.51E-07	1.68E-08	0.31	0.00	1.82E-04	2.36E-04	4.18E-04
564350_4183270	564350	4183270	2.45E-04	2.72E-04	5.17E-04	potential residence	7.01E-09	1.70E-07	1.87E-07	2.08E-08	0.38	0.00	2.45E-04	2.72E-04	5.17E-04
564370_4183270	564370	4183270	2.35E-04	2.70E-04	5.05E-04	potential residence	6.85E-09	1.66E-07	1.83E-07	2.03E-08	0.38	0.00	2.35E-04	2.70E-04	5.05E-04
564390_4183270	564390	4183270	2.24E-04	2.67E-04	4.92E-04	potential residence	6.67E-09	1.61E-07	1.78E-07	1.98E-08	0.37	0.00	2.24E-04	2.67E-04	4.92E-04
564410_4183270	564410	4183270	2.14E-04	2.63E-04	4.76E-04	potential residence	6.46E-09	1.56E-07	1.72E-07	1.91E-08	0.35	0.00	2.14E-04	2.63E-04	4.76E-04
564430_4183270	564430	4183270	2.14E-04	2.57E-04	4.71E-04	potential residence	6.39E-09	1.55E-07	1.71E-07	1.89E-08	0.35	0.00	2.14E-04	2.57E-04	4.71E-04
564450_4183270	564450	4183270	2.11E-04	2.55E-04	4.66E-04	potential residence	6.32E-09	1.53E-07	1.69E-07	1.87E-08	0.35	0.00	2.11E-04	2.55E-04	4.66E-04
564470_4183270	564470	4183270	2.11E-04	2.56E-04	4.66E-04	potential residence	6.33E-09	1.53E-07	1.69E-07	1.87E-08	0.35	0.00	2.11E-04	2.56E-04	4.66E-04
564490_4183270	564490	4183270	2.13E-04	2.57E-04	4.69E-04	potential residence	6.37E-09	1.54E-07	1.70E-07	1.89E-08	0.35	0.00	2.13E-04	2.57E-04	4.69E-04
564510_4183270	564510	4183270	2.15E-04	2.55E-04	4.70E-04	potential residence	6.37E-09	1.54E-07	1.70E-07	1.89E-08	0.35	0.00	2.15E-04	2.55E-04	4.70E-04
564530_4183270	564530	4183270	2.16E-04	2.48E-04	4.64E-04	potential residence	6.29E-09	1.52E-07	1.68E-07	1.86E-08	0.35	0.00	2.16E-04	2.48E-04	4.64E-04
564550_4183270	564550	4183270	2.17E-04	2.49E-04	4.66E-04	potential residence	6.32E-09	1.53E-07	1.69E-07	1.87E-08	0.35	0.00	2.17E-04	2.49E-04	4.66E-04
564570_4183270	564570	4183270	2.13E-04	2.51E-04	4.64E-04	potential residence	6.29E-09	1.52E-07	1.68E-07	1.86E-08	0.35	0.00	2.13E-04	2.51E-04	4.64E-04
564590_4183270	564590	4183270	2.07E-04	2.52E-04	4.59E-04	potential residence	6.23E-09	1.51E-07	1.66E-07	1.85E-08	0.34	0.00	2.07E-04	2.52E-04	4.59E-04

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2 | HI | PM2.5

			Annual O&M			Receptor Type	$\sum R1 * C_{DPM}$					C_{DPM}/REL	Annual O&M		
Lookup	X (UTM)	Y (UTM	Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total		Bldg A	Bldg C	Total
564610_4183270	564610	4183270	2.01E-04	2.50E-04	4.52E-04	potential residence	6.13E-09	1.48E-07	1.64E-07	1.82E-08	0.34	0.00	2.01E-04	2.50E-04	4.52E-04
564310_4183290	564310	4183290	2.81E-04	2.74E-04	5.55E-04	potential residence	7.53E-09	1.82E-07	2.01E-07	2.23E-08	0.41	0.00	2.81E-04	2.74E-04	5.55E-04
564330_4183290	564330	4183290	2.74E-04	2.79E-04	5.53E-04	potential residence	7.50E-09	1.82E-07	2.00E-07	2.22E-08	0.41	0.00	2.74E-04	2.79E-04	5.53E-04
564350_4183290	564350	4183290	2.69E-04	2.88E-04	5.57E-04	potential residence	7.56E-09	1.83E-07	2.02E-07	2.24E-08	0.41	0.00	2.69E-04	2.88E-04	5.57E-04
564370_4183290	564370	4183290	2.59E-04	2.88E-04	5.47E-04	potential residence	7.42E-09	1.80E-07	1.98E-07	2.20E-08	0.41	0.00	2.59E-04	2.88E-04	5.47E-04
564390_4183290	564390	4183290	2.48E-04	2.89E-04	5.37E-04	potential residence	7.28E-09	1.76E-07	1.94E-07	2.16E-08	0.40	0.00	2.48E-04	2.89E-04	5.37E-04
564410_4183290	564410	4183290	2.37E-04	2.84E-04	5.21E-04	potential residence	7.07E-09	1.71E-07	1.89E-07	2.10E-08	0.39	0.00	2.37E-04	2.84E-04	5.21E-04
564430_4183290	564430	4183290	2.30E-04	2.84E-04	5.14E-04	potential residence	6.97E-09	1.69E-07	1.86E-07	2.07E-08	0.38	0.00	2.30E-04	2.84E-04	5.14E-04
564450_4183290	564450	4183290	2.23E-04	2.80E-04	5.03E-04	potential residence	6.82E-09	1.65E-07	1.82E-07	2.02E-08	0.37	0.00	2.23E-04	2.80E-04	5.03E-04
564470_4183290	564470	4183290	2.20E-04	2.78E-04	4.98E-04	potential residence	6.76E-09	1.64E-07	1.80E-07	2.00E-08	0.37	0.00	2.20E-04	2.78E-04	4.98E-04
564490_4183290	564490	4183290	2.20E-04	2.81E-04	5.01E-04	potential residence	6.80E-09	1.65E-07	1.81E-07	2.01E-08	0.37	0.00	2.20E-04	2.81E-04	5.01E-04
564510_4183290	564510	4183290	2.24E-04	2.83E-04	5.08E-04	potential residence	6.88E-09	1.67E-07	1.84E-07	2.04E-08	0.38	0.00	2.24E-04	2.83E-04	5.08E-04
564530_4183290	564530	4183290	2.26E-04	2.76E-04	5.02E-04	potential residence	6.80E-09	1.65E-07	1.82E-07	2.02E-08	0.37	0.00	2.26E-04	2.76E-04	5.02E-04
564550_4183290	564550	4183290	2.27E-04	2.74E-04	5.01E-04	potential residence	6.79E-09	1.64E-07	1.81E-07	2.01E-08	0.37	0.00	2.27E-04	2.74E-04	5.01E-04
564570_4183290	564570	4183290	2.31E-04	2.71E-04	5.02E-04	potential residence	6.81E-09	1.65E-07	1.82E-07	2.02E-08	0.37	0.00	2.31E-04	2.71E-04	5.02E-04
564290_4183310	564290	4183310	2.94E-04	2.68E-04	5.62E-04	potential residence	7.63E-09	1.85E-07	2.04E-07	2.26E-08	0.42	0.00	2.94E-04	2.68E-04	5.62E-04
564310_4183310	564310	4183310	3.00E-04	2.74E-04	5.74E-04	potential residence	7.78E-09	1.88E-07	2.08E-07	2.31E-08	0.43	0.00	3.00E-04	2.74E-04	5.74E-04
564330_4183310	564330	4183310	2.98E-04	2.88E-04	5.86E-04	potential residence	7.95E-09	1.92E-07	2.12E-07	2.36E-08	0.44	0.00	2.98E-04	2.88E-04	5.86E-04
564350_4183310	564350	4183310	2.92E-04	2.98E-04	5.90E-04	potential residence	8.00E-09	1.94E-07	2.14E-07	2.37E-08	0.44	0.00	2.92E-04	2.98E-04	5.90E-04
564370_4183310	564370	4183310	2.83E-04	3.06E-04	5.89E-04	potential residence	7.99E-09	1.93E-07	2.13E-07	2.37E-08	0.44	0.00	2.83E-04	3.06E-04	5.89E-04
564390_4183310	564390	4183310	2.74E-04	3.07E-04	5.81E-04	potential residence	7.88E-09	1.91E-07	2.10E-07	2.33E-08	0.43	0.00	2.74E-04	3.07E-04	5.81E-04
564410_4183310	564410	4183310	2.64E-04	3.11E-04	5.75E-04	potential residence	7.80E-09	1.89E-07	2.08E-07	2.31E-08	0.43	0.00	2.64E-04	3.11E-04	5.75E-04
564430_4183310	564430	4183310	2.55E-04	3.08E-04	5.64E-04	potential residence	7.64E-09	1.85E-07	2.04E-07	2.27E-08	0.42	0.00	2.55E-04	3.08E-04	5.64E-04
564450_4183310	564450	4183310	2.42E-04	3.13E-04	5.54E-04	potential residence	7.52E-09	1.82E-07	2.01E-07	2.23E-08	0.41	0.00	2.42E-04	3.13E-04	5.54E-04
564470_4183310	564470	4183310	2.33E-04	3.14E-04	5.48E-04	potential residence	7.43E-09	1.80E-07	1.98E-07	2.20E-08	0.41	0.00	2.33E-04	3.14E-04	5.48E-04
564490_4183310	564490	4183310	2.30E-04	3.11E-04	5.41E-04	potential residence	7.34E-09	1.78E-07	1.96E-07	2.17E-08	0.40	0.00	2.30E-04	3.11E-04	5.41E-04
564510_4183310	564510	4183310	2.32E-04	3.11E-04	5.43E-04	potential residence	7.36E-09	1.78E-07	1.97E-07	2.18E-08	0.40	0.00	2.32E-04	3.11E-04	5.43E-04
564530_4183310	564530	4183310	2.36E-04	3.06E-04	5.42E-04	potential residence	7.35E-09	1.78E-07	1.96E-07	2.18E-08	0.40	0.00	2.36E-04	3.06E-04	5.42E-04
564290_4183330	564290	4183330	2.95E-04	2.69E-04	5.63E-04	potential residence	7.64E-09	1.85E-07	2.04E-07	2.26E-08	0.42	0.00	2.95E-04	2.69E-04	5.63E-04
564310_4183330	564310	4183330	3.07E-04	2.83E-04	5.90E-04	potential residence	8.00E-09	1.94E-07	2.14E-07	2.37E-08	0.44	0.00	3.07E-04	2.83E-04	5.90E-04
564330_4183330	564330	4183330	3.15E-04	2.91E-04	6.06E-04	potential residence	8.22E-09	1.99E-07	2.19E-07	2.44E-08	0.45	0.00	3.15E-04	2.91E-04	6.06E-04
564350_4183330	564350	4183330	3.17E-04	3.07E-04	6.24E-04	potential residence	8.46E-09	2.05E-07	2.26E-07	2.51E-08	0.46	0.00	3.17E-04	3.07E-04	6.24E-04
564370_4183330	564370	4183330	3.12E-04	3.19E-04	6.32E-04	potential residence	8.57E-09	2.08E-07	2.29E-07	2.54E-08	0.47	0.00	3.12E-04	3.19E-04	6.32E-04
564390_4183330	564390	4183330	3.04E-04	3.35E-04	6.39E-04	potential residence	8.66E-09	2.10E-07	2.31E-07	2.57E-08	0.48	0.00	3.04E-04	3.35E-04	6.39E-04
564410_4183330	564410	4183330	2.88E-04	3.36E-04	6.24E-04	potential residence	8.46E-09	2.05E-07	2.26E-07	2.51E-08	0.46	0.00	2.88E-04	3.36E-04	6.24E-04
564430_4183330	564430	4183330	2.80E-04	3.39E-04	6.19E-04	potential residence	8.39E-09	2.03E-07	2.24E-07	2.49E-08	0.46	0.00	2.80E-04	3.39E-04	6.19E-04
564450_4183330	564450	4183330	2.69E-04	3.45E-04	6.14E-04	potential residence	8.33E-09	2.02E-07	2.22E-07	2.47E-08	0.46	0.00	2.69E-04	3.45E-04	6.14E-04
564470_4183330	564470	4183330	2.59E-04	3.49E-04	6.08E-04	potential residence	8.24E-09	2.00E-07	2.20E-07	2.44E-08	0.45	0.00	2.59E-04	3.49E-04	6.08E-04
564490_4183330	564490	4183330	2.47E-04	3.50E-04	5.96E-04	potential residence	8.08E-09	1.96E-07	2.16E-07	2.40E-08	0.44	0.00	2.47E-04	3.50E-04	5.96E-04
564270_4183350	564270	4183350	2.86E-04	2.44E-04	5.30E-04	potential residence	7.18E-09	1.74E-07	1.92E-07	2.13E-08	0.39	0.00	2.86E-04	2.44E-04	5.30E-04
564290_4183350	564290	4183350	2.95E-04	2.61E-04	5.56E-04	potential residence	7.54E-09	1.83E-07	2.01E-07	2.24E-08	0.41	0.00	2.95E-04	2.61E-04	5.56E-04
564310_4183350	564310	4183350	3.06E-04	2.82E-04	5.89E-04	potential residence	7.99E-09	1.93E-07	2.13E-07	2.37E-08	0.44	0.00	3.06E-04	2.82E-04	5.89E-04
564330_4183350	564330	4183350	3.21E-04	2.99E-04	6.20E-04	potential residence	8.41E-09	2.04E-07	2.24E-07	2.49E-08	0.46	0.00	3.21E-04	2.99E-04	6.20E-04
564350_4183350	564350	4183350	3.33E-04	3.13E-04	6.46E-04	potential residence	8.77E-09	2.12E-07	2.34E-07	2.60E-08	0.48	0.00	3.33E-04	3.13E-04	6.46E-04
564370_4183350	564370	4183350	3.38E-04	3.29E-04	6.67E-04	potential residence	9.05E-09	2.19E-07	2.42E-07	2.68E-08	0.50	0.00	3.38E-04	3.29E-04	6.67E-04
564390_4183350	564390	4183350	3.39E-04	3.45E-04	6.83E-04	potential residence	9.27E-09	2.24E-07	2.47E-07	2.75E-08	0.51	0.00	3.39E-04	3.45E-04	6.83E-04
564410_4183350	564410	4183350	3.30E-04	3.60E-04	6.91E-04	potential residence	9.37E-09	2.27E-07	2.50E-07	2.78E-08	0.51	0.00	3.30E-04	3.60E-04	6.91E-04
564430_4183350	564430	4183350	3.14E-04	3.71E-04	6.85E-04	potential residence	9.29E-09	2.25E-07	2.48E-07	2.75E-08	0.51	0.00	3.14E-04	3.71E-04	6.85E-04
564450_4183350	564450	4183350	3.00E-04	3.80E-04	6.80E-04	potential residence	9.22E-09	2.23E-07	2.46E-07	2.73E-08	0.51	0.00	3.00E-04	3.80E-04	6.80E-04
564270_4183370	564270	4183370	2.84E-04	2.42E-04	5.25E-04	potential residence	7.12E-09	1.73E-07	1.90E-07	2.11E-08	0.39	0.00	2.84E-04	2.42E-04	5.25E-04
564290_4183370	564290	4183370	2.99E-04	2.58E-04	5.57E-04	potential residence	7.56E-09	1.83E-07	2.02E-07	2.24E-08	0.41	0.00	2.99E-04	2.58E-04	5.57E-04
564310_4183370	564310	4183370	3.14E-04	2.75E-04	5.89E-04	potential residence	7.99E-09	1.94E-07	2.13E-07	2.37E-08	0.44	0.00	3.14E-04	2.75E-04	5.89E-04
564330_4183370	564330	4183370	3.28E-04	2.93E-04	6.21E-04	potential residence	8.42E-09	2.04E-07	2.25E-07	2.50E-08	0.46	0.00	3.28E-04	2.93E-04	6.21E-04
564350_4183370	564350	4183370	3.39E-04	3.17E-04	6.56E-04	potential residence	8.90E-09	2.16E-07	2.38E-07	2.64E-08	0.49	0.00	3.39E-04	3.17E-04	6.56E-04
564370_4183370	564370	4183370	3.54E-04	3.34E-04	6.88E-04	potential residence	9.33E-09	2.26E-07	2.49E-07	2.77E-08	0.51	0.00	3.54E-04	3.34E-04	6.88E-04
564390_4183370	564390	4183370	3.57E-04	3.57E-04	7.14E-04	potential residence	9.68E-09	2.34E-07	2.58E-07	2.87E-08	0.53	0.00	3.57E-04	3.57E-04	7.14E-04
564410_4183370	564410	4183370	3.59E-04	3.81E-04	7.40E-04	potential residence	1.00E-08	2.43E-07	2.68E-07	2.97E-08	0.55	0.00	3.59E-04	3.81E-04	7.40E-04
564250_4183390	564250	4183390	2.58E-04	2.24E-04	4.82E-04	potential residence	6.54E-09	1.58E-07	1.75E-07	1.94E-08	0.36	0.00	2.58E-04	2.24E-04	4.82E-04
564270_4183390	564270	4183390	2.73E-04	2.39E-04	5.12E-04	potential residence	6.95E-09	1.68E-07	1.85E-07	2.06E-08	0.38	0.00	2.73E-04	2.39E-04	5.12E-04
564290_4183390	564290	4183390	2.90E-04	2.50E-04	5.40E-04	potential residence	7.32E-09	1.77E-07	1.95E-07	2.17E-08	0.40	0.00	2.90E-04	2.50E-04	5.40E-04
564310_4183390	564310	4183390	3.09E-04	2.66E-04	5.75E-04	potential residence	7.80E-09	1.89E-07	2.08E-07	2.31E-08	0.43	0.00	3.09E-04	2.66E-04	5.75E-04
564330_4183390	564330	4183390	3.27E-04	2.83E-04	6.10E-04	potential residence	8.27E-09	2.00E-07	2.21E-07	2.45E-08	0.45	0.00	3.27E-04	2.83E-04	6.10E-04
564350_4183390	564350	4183390	3.45E-04	3.11E-04	6.56E-04	potential residence	8.90E-09	2.16E-07	2.38E-07	2.64E-08	0.49	0.00	3.45E-04	3.11E-04	6.56E-04
564370_4183390	564370	4183390	3.64E-04	3.36E-04	7.00E-04	potential residence	9.50E-09	2.30E-07	2.54E-07	2.81E-08	0.52	0.00	3.64E-04	3.36E-04	7.00E-04
564690_4183390	564690	4183390	3.35E-04	6.97E-04	1.03E-03	potential residence	1.40E-08	3.39E-07	3.74E-07	4.15E-08	0.77	0.00	3.35E-04	6.97E-04	1.03E-03
564710_4183390	564710	4183390	3.39E-04	6.60E-04	9.99E-04	potential residence	1.36E-08	3.28E-07	3.62E-07	4.02E-08	0.74	0.00	3.39E-04	6.60E-04	9.99E-04
564250_4183410	564250	4183410	2.54E-04	2.19E-04	4.73E-04	potential residence	6.42E-09	1.55E-07	1.71E-07	1.90E-08	0.35	0.00	2.54E-04	2.19E-04	4.73E-04
564270_4183410	564270	4183410	2.67E-04	2.30E-04	4.97E-04	potential residence	6.75E-09	1.63E-07	1.80E-07	2.00E-08	0.37	0.00	2.67E-04	2.30E-04	4.97E-04
564290_4183410	564290	4183410	2.81E-04	2.46E-04	5.27E-04	potential residence	7.15E-09	1.73E-07	1.91E-07	2.12E-08	0.39	0.00	2.81E-04	2.46E-04	5.27E-04
564310_4183410	564310	4183410	2.95E-04	2.62E-04	5.57E-04	potential residence	7.56E-09	1.83E-07	2.02E-07	2.24E-08	0.41	0.00	2.95E-04	2.62E-04	5.57E-04
564330_4183410	564330	4183410	3.18E-04	2.72E-04	5.90E-04	potential residence	8.00E-09	1.94E-07	2.13E-07	2.37E-08	0.44	0.00	3.18E-04	2.72E-04	5.90E-04
564570_4183410	564570	4183410	3.10E-04	7.55E-04	1.07E-03	potential residence	1.44E-08	3.50E-07	3.86E-07	4.28E-08	0.79	0.00	3.10E-04	7.55E-04	1.07E-03
564590_4183410	564590	4183410	3.31E-04	7.38E-04	1.07E-03	potential residence	1.45E-08	3.51E-07	3.87E-07	4.29E-08	0.79	0.00	3.31E-04	7.38E-04	1.07E-03
564690_4183410	564690	4183410	3.82E-04	9.95E-04	1.38E-03	potential residence	1.87E-08	4.52E-07	4.98E-07	5.53E-08	1.02	0.00	3.82E-04	9.95E-04	1.38E-03
564710_4183410	564710	4183410	3.91E-04	9.44E-04	1.33E-03	potential residence	1.81E-08	4.39E-07	4.83E-07	5.37E-08	0.99	0.00	3.91E-04	9.44E-04	1.33E-03
564230_4183430	564230	4183430	2.37E-04	1.96E-04	4.33E-04	potential residence	5.87E-09	1.42E-07	1.57E-07	1.74E-08	0.32	0.00	2.37E-04	1.96E-04	4.33E-04
564250_4183430	564250	4183430	2.53E-04	2.09E-04	4.62E-04	potential residence	6.26E-09	1.52E-07	1.67E-07	1.86E-08	0.34	0.00	2.53E-04	2.09E-04	4.62E-04
564270_4183430	564270	4183430	2.65E-04	2.18E-04	4.83E-04	potential residence	6.55E-09	1.59E-07	1.75E-07	1.94E-08	0.36	0.00	2.65E-04	2.18E-04	4.83E-04
564290_4183430	564290	4183430	2.80E-04	2.33E-04	5.13E-04	potential residence	6.96E-09	1.69E-07	1.86E-07	2.06E-08	0.38	0.00	2.80E-04	2.33E-04	5.13E-04
564550_4183430	564550	4183430	3.50E-04	9.68E-04	1.32E-03	potential residence	1.79E-08	4.33E-07	4.77E-07	5.30E-08	0.98	0.00	3.50E-04	9.68E-04	1.32E-03
564570_4183430	564570	4183430	3.01E-04	1.00E-03	1.30E-03	potential residence	1.76E-08	4.27E-07	4.71E-07	5.23E-08	0.97	0.00	3.01E-04	1.00E-03	1.30E-03
564590_4183430	564590	4183430	3.06E-04	9.70E-04	1.28E-03	potential residence	1.73E-08	4.19E-07	4.62E-07	5.13E-08	0.95	0.00	3.06E-04	9.70E-04	1.28E-03
564630_4183430	564630	4183430	3.78E-04	9.85E-04	1.36E-03	potential residence	1.85E-08	4.48E-07	4.94E-07	5.48E-08	1.01	0.00	3.78E-04	9.85E-04	1.36E-03
564650_4183430	564650	4183430	3.46E-04	1.10E-03	1.44E-03	potential residence	1.95E-08	4.73E-07	5.22E-07	5.79E-08	1.07	0.00	3.46E-04	1.10E-03	1.44E-03
564730_4183430	564730	4183430	4.90E-04	1.06E-03	1.55E-03	potential residence	2.10E-08	5.08E-07	5.60E-07	6.22E-08	1.15	0.00	4.90E-04	1.06E-03	1.55E-03
564230_4183450	564230	4183450	2.25E-04	1.90E-04	4.15E-04	potential residence	5.63E-09	1.36E-07	1.50E-07	1.67E-08	0.31	0.00	2.25E-04	1.90E-04	4.15E-04
564250_4183450	564250	4183450	2.39E-04	2.02E-04	4.42E-04	potential residence	5.99E-09	1.45E-07	1.60E-07	1.78E-08	0.33	0.00	2.39E-04	2.02E-04	4.42E-04
564570_4183450	564570	4183450	3.65E-04	1.29E-03	1.65E-03	potential residence	2.24E-08	5.43E-07	5.98E-07	6.64E-08	1.23	0.00	3.65E-04	1.29E-03	1.65E-03
564590_4183450	564590	4183450	2.94E-04	1.34E-03	1.64E-03	potential residence	2.22E-08	5.38E-07	5.93E-07	6.58E-08	1.22	0.00	2.94E-04	1.34E-03	1.64E-03
564610_4183450	564610	4183450	3.02E-04	1.33E-03	1.63E-03	potential residence	2.22E-08	5.37E-07	5.91E-07	6.56E-08	1.22	0.00	3.02E-04	1.33E-03	1.63E-03
564690_4183450	564690	4183450	5.07E-04	1.93E-03	2.43E-03	potential residence	3.30E-08	7.99E-07	8.81E-07	9.78E-08	1.81	0.00	5.07E-04	1.93E-03	2.43E-03
564710_4183450	564710	4183450	6.00E-04	1.92E-03	2.52E-03	potential residence	3.42E-08	8.28E-07	9.12E-07	1.01E-07	1.88	0.00	6.00E-04	1.92E-03	2.52E-03
564730_4183450	564730	4183450	6.50E-04	1.47E-03	2.12E-03	potential residence	2.88E-08	6.97E-07	7.69E-07	8.53E-08	1.58	0.00	6.50E-04	1.47E-03	2.12E-03
564450_4183470	564450	4183470	4.67E-04	4.52E-04	9.18E-04	potential residence	1.25E-08	3.02E-07	3.32E-07	3.69E-08	0.68	0.00	4.67E-04	4.52E-04	9.18E-04
564470_4183470	564470	4183470	6.02E-04	5.84E-04	1.19E-03	potential residence	1.61E-08	3.89E-07	4.29E-07	4.76E-08	0.88	0.00	6.02E-04	5.84E-04	1.19E-03
564490_4183470	564490	4183470	6.50E-04	7.39E-04	1.39E-03	potential residence	1.88E-08	4.56E-07	5.03E-07	5.58E-08	1.03	0.00	6.50E-04	7.39E-04	1.39E-03
564530_4183470	564530	4183470	6.88E-04	1.05E-03	1.74E-03	potential residence	2.35E-08	5.70E-07	6.28E-07	6.97E-08	1.29	0.00	6.88E-04	1.05E-03	1.74E-03
564550_4183470	564550	4183470	6.63E-04	1.27E-03	1.93E-03	potential residence	2.62E-08	6.34E-07	6.98E-07	7.75E-08	1.44	0.00	6.63E-04	1.27E-03	1.93E-03
564570_4183470	564570	4183470	5.85E-04	1.59E-03	2.18E-03	potential residence	2.95E-08	7.15E-07	7.88E-07	8.75E-08	1.62	0.00	5.85E-04	1.59E-03	2.18E-03
564590_4183470	564590	4183470	4.79E-04	1.88E-03	2.36E-03	potential residence	3.20E-08	7.74E-07	8.53E-07	9.47E-08	1.75	0.00	4.79E-04	1.88E-03	2.36E-03
564650_4183470	564650	4183470	2.88E-04	2.79E-03	3.07E-03	potential residence	4.17E-08	1.01E-06	1.11E-06	1.24E-07	2.29	0.00	2.88E-04	2.79E-03	3.07E-03
564670_4183470	564670	4183470	3.91E-04	2.80E-03	3.20E-03	potential residence	4.33E-08	1.05E-06	1.16E-06	1.28E-07	2.38	0.00	3.91E-04	2.80E-03	3.20E-03
564690_4183470	564690	4183470	5.77E-04	2.69E-03	3.26E-03	potential residence	4.43E-08	1.07E-06	1.18E-06	1.31E-07	2.43	0.00	5.77E-04	2.69E-03	3.26E-03
564710_4183470	564710	4183470	7.03E-04	2.51E-03	3.21E-03	potential residence	4.35E-08	1.05E-06	1.16E-06	1.29E-07	2.39	0.00	7.03E-04	2.51E-03	3.21E-03
564730_4183470	564730	4183470	7.72E-04	2.03E-03	2.80E-03	potential residence	3.80E-08	9.20E-07	1.01E-06	1.13E-07	2.08	0.00	7.72E-04	2.03E-03	2.80E-03
564750_4183470	564750	4183470	8.11E-04	1.39E-03	2.20E-03	potential residence	2.98E-08	7.22E-07	7.95E-07	8.83E-08	1.63	0.00	8.11E-04	1.39E-03	2.20E-03
564410_4183490	564410	4183490	3.58E-04	3.26E-04	6.84E-04	potential residence	9.28E-09	2.25E-07	2.48E-07	2.75E-08	0.51	0.00	3.58E-04	3.26E-04	6.84E-04
564430_4183490	564430	4183490	3.91E-04	3.68E-04	7.60E-04	potential residence	1.03E-08	2.50E-07	2.75E-07	3.05E-08	0.57	0.00	3.91E-04	3.68E-04	7.60E-04
564450_4183490	564450	4183490	4.45E-04	4.24E-04	8.70E-04	potential residence	1.18E-08	2.86E-07	3.15E-07	3.50E-08	0.65	0.00	4.45E-04	4.24E-04	8.70E-04
564470_4183490	564470	4183490	5.41E-04	5.50E-04	1.09E-03	potential residence	1.48E-08	3.58E-07	3.95E-07	4.38E-08	0.81	0.00	5.41E-04	5.50E-04	1.09E-03

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2 | HI | PM2.5

Lookup	X (UTM)	Y (UTM	Annual O&M			Receptor Type	∑R1*C_{DPM}					C_{DPM}/REL	Annual O&M		
			Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total		Bldg A	Bldg C	Total
564490_4183490	564490	4183490	6.07E-04	6.90E-04	1.30E-03	potential residence	1.76E-08	4.26E-07	4.70E-07	5.21E-08	0.97	0.00	6.07E-04	6.90E-04	1.30E-03
564530_4183490	564530	4183490	7.42E-04	1.03E-03	1.77E-03	potential residence	2.40E-08	5.81E-07	6.41E-07	7.11E-08	1.32	0.00	7.42E-04	1.03E-03	1.77E-03
564550_4183490	564550	4183490	8.00E-04	1.30E-03	2.10E-03	potential residence	2.85E-08	6.90E-07	7.61E-07	8.45E-08	1.56	0.00	8.00E-04	1.30E-03	2.10E-03
564610_4183490	564610	4183490	4.75E-04	3.85E-03	4.32E-03	Building C	5.86E-08	1.42E-06	1.56E-06	1.74E-07	3.22	0.00	4.75E-04	3.85E-03	4.32E-03
564630_4183490	564630	4183490	3.00E-04	4.65E-03	4.95E-03	Building C	6.71E-08	1.63E-06	1.79E-06	1.99E-07	3.68	0.00	3.00E-04	4.65E-03	4.95E-03
564650_4183490	564650	4183490	2.37E-04	4.57E-03	4.80E-03	potential residence	6.51E-08	1.58E-06	1.74E-06	1.93E-07	3.58	0.00	2.37E-04	4.57E-03	4.80E-03
564670_4183490	564670	4183490	3.44E-04	4.00E-03	4.34E-03	potential residence	5.89E-08	1.43E-06	1.57E-06	1.74E-07	3.23	0.00	3.44E-04	4.00E-03	4.34E-03
564690_4183490	564690	4183490	5.29E-04	3.41E-03	3.94E-03	potential residence	5.34E-08	1.29E-06	1.43E-06	1.58E-07	2.93	0.00	5.29E-04	3.41E-03	3.94E-03
564710_4183490	564710	4183490	7.34E-04	2.89E-03	3.62E-03	potential residence	4.91E-08	1.19E-06	1.31E-06	1.46E-07	2.70	0.00	7.34E-04	2.89E-03	3.62E-03
564730_4183490	564730	4183490	9.07E-04	2.45E-03	3.35E-03	potential residence	4.55E-08	1.10E-06	1.21E-06	1.35E-07	2.50	0.00	9.07E-04	2.45E-03	3.35E-03
564750_4183490	564750	4183490	1.03E-03	1.80E-03	2.82E-03	potential residence	3.83E-08	9.28E-07	1.02E-06	1.14E-07	2.10	0.00	1.03E-03	1.80E-03	2.82E-03
564370_4183510	564370	4183510	2.72E-04	2.47E-04	5.19E-04	potential residence	7.03E-09	1.70E-07	1.88E-07	2.08E-08	0.39	0.00	2.72E-04	2.47E-04	5.19E-04
564410_4183510	564410	4183510	3.16E-04	3.01E-04	6.17E-04	potential residence	8.36E-09	2.03E-07	2.23E-07	2.48E-08	0.46	0.00	3.16E-04	3.01E-04	6.17E-04
564430_4183510	564430	4183510	3.46E-04	3.35E-04	6.81E-04	potential residence	9.24E-09	2.24E-07	2.47E-07	2.74E-08	0.51	0.00	3.46E-04	3.35E-04	6.81E-04
564450_4183510	564450	4183510	3.92E-04	3.88E-04	7.79E-04	potential residence	1.06E-08	2.56E-07	2.82E-07	3.13E-08	0.58	0.00	3.92E-04	3.88E-04	7.79E-04
564470_4183510	564470	4183510	4.53E-04	5.04E-04	9.57E-04	potential residence	1.30E-08	3.14E-07	3.47E-07	3.85E-08	0.71	0.00	4.53E-04	5.04E-04	9.57E-04
564490_4183510	564490	4183510	5.02E-04	6.22E-04	1.12E-03	potential residence	1.52E-08	3.69E-07	4.07E-07	4.52E-08	0.84	0.00	5.02E-04	6.22E-04	1.12E-03
564510_4183510	564510	4183510	5.63E-04	7.67E-04	1.33E-03	potential residence	1.80E-08	4.37E-07	4.81E-07	5.34E-08	0.99	0.00	5.63E-04	7.67E-04	1.33E-03
564550_4183510	564550	4183510	7.63E-04	1.29E-03	2.06E-03	Block 2	2.79E-08	6.75E-07	7.44E-07	8.26E-08	1.53	0.00	7.63E-04	1.29E-03	2.06E-03
564570_4183510	564570	4183510	8.63E-04	1.98E-03	2.84E-03	Building D	3.86E-08	9.34E-07	1.03E-06	1.14E-07	2.12	0.00	8.63E-04	1.98E-03	2.84E-03
564590_4183510	564590	4183510	7.54E-04	3.35E-03	4.10E-03	Building C	5.56E-08	1.35E-06	1.49E-06	1.65E-07	3.05	0.00	7.54E-04	3.35E-03	4.10E-03
564610_4183510	564610	4183510	5.39E-04	4.99E-03	5.53E-03	Building C	7.50E-08	1.82E-06	2.00E-06	2.22E-07	4.12	0.00	5.39E-04	4.99E-03	5.53E-03
564630_4183510	564630	4183510	3.20E-04	5.88E-03	6.20E-03	Building C	8.40E-08	2.04E-06	2.24E-06	2.49E-07	4.61	0.00	3.20E-04	5.88E-03	6.20E-03
564650_4183510	564650	4183510	0.00E+00	0.00E+00	0.00E+00	Omit	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	0.00E+00	0.00E+00	0.00E+00
564710_4183510	564710	4183510	7.04E-04	3.02E-03	3.73E-03	potential residence	5.06E-08	1.23E-06	1.35E-06	1.50E-07	2.78	0.00	7.04E-04	3.02E-03	3.73E-03
564750_4183510	564750	4183510	1.32E-03	2.03E-03	3.35E-03	Building B	4.55E-08	1.10E-06	1.21E-06	1.35E-07	2.50	0.00	1.32E-03	2.03E-03	3.35E-03
564770_4183510	564770	4183510	1.60E-03	1.29E-03	2.90E-03	Building B	3.93E-08	9.52E-07	1.05E-06	1.16E-07	2.16	0.00	1.60E-03	1.29E-03	2.90E-03
564330_4183530	564330	4183530	2.15E-04	2.02E-04	4.16E-04	potential residence	5.65E-09	1.37E-07	1.51E-07	1.67E-08	0.31	0.00	2.15E-04	2.02E-04	4.16E-04
564350_4183530	564350	4183530	2.25E-04	2.13E-04	4.38E-04	potential residence	5.93E-09	1.44E-07	1.58E-07	1.76E-08	0.33	0.00	2.25E-04	2.13E-04	4.38E-04
564370_4183530	564370	4183530	2.36E-04	2.29E-04	4.65E-04	potential residence	6.31E-09	1.53E-07	1.68E-07	1.87E-08	0.35	0.00	2.36E-04	2.29E-04	4.65E-04
564390_4183530	564390	4183530	2.55E-04	2.49E-04	5.03E-04	potential residence	6.82E-09	1.65E-07	1.82E-07	2.02E-08	0.37	0.00	2.55E-04	2.49E-04	5.03E-04
564430_4183530	564430	4183530	2.86E-04	3.09E-04	5.96E-04	potential residence	8.08E-09	1.96E-07	2.16E-07	2.39E-08	0.44	0.00	2.86E-04	3.09E-04	5.96E-04
564450_4183530	564450	4183530	3.19E-04	3.51E-04	6.69E-04	potential residence	9.08E-09	2.20E-07	2.42E-07	2.69E-08	0.50	0.00	3.19E-04	3.51E-04	6.69E-04
564470_4183530	564470	4183530	3.46E-04	4.45E-04	7.92E-04	potential residence	1.07E-08	2.60E-07	2.87E-07	3.18E-08	0.59	0.00	3.46E-04	4.45E-04	7.92E-04
564510_4183530	564510	4183530	3.95E-04	7.01E-04	1.10E-03	potential residence	1.49E-08	3.60E-07	3.97E-07	4.41E-08	0.82	0.00	3.95E-04	7.01E-04	1.10E-03
564550_4183530	564550	4183530	5.57E-04	1.21E-03	1.77E-03	Building D	2.40E-08	5.81E-07	6.41E-07	7.11E-08	1.32	0.00	5.57E-04	1.21E-03	1.77E-03
564570_4183530	564570	4183530	6.54E-04	1.81E-03	2.46E-03	Building D	3.34E-08	8.08E-07	8.91E-07	9.89E-08	1.83	0.00	6.54E-04	1.81E-03	2.46E-03
564590_4183530	564590	4183530	5.96E-04	3.00E-03	3.60E-03	Building C	4.88E-08	1.18E-06	1.30E-06	1.45E-07	2.68	0.00	5.96E-04	3.00E-03	3.60E-03
564610_4183530	564610	4183530	4.56E-04	4.67E-03	5.13E-03	Building C	6.95E-08	1.68E-06	1.86E-06	2.06E-07	3.82	0.00	4.56E-04	4.67E-03	5.13E-03
564630_4183530	564630	4183530	2.62E-04	5.44E-03	5.70E-03	Building C	7.73E-08	1.87E-06	2.06E-06	2.29E-07	4.24	0.00	2.62E-04	5.44E-03	5.70E-03
564650_4183530	564650	4183530	1.56E-04	5.25E-03	5.41E-03	Building C	7.34E-08	1.78E-06	1.96E-06	2.17E-07	4.03	0.00	1.56E-04	5.25E-03	5.41E-03
564710_4183530	564710	4183530	6.25E-04	2.80E-03	3.43E-03	Building B	4.65E-08	1.13E-06	1.24E-06	1.38E-07	2.55	0.00	6.25E-04	2.80E-03	3.43E-03
564730_4183530	564730	4183530	1.10E-03	2.46E-03	3.56E-03	Building B	4.83E-08	1.17E-06	1.29E-06	1.43E-07	2.65	0.00	1.10E-03	2.46E-03	3.56E-03
564750_4183530	564750	4183530	1.83E-03	2.05E-03	3.87E-03	Block 1	5.25E-08	1.27E-06	1.40E-06	1.56E-07	2.88	0.00	1.83E-03	2.05E-03	3.87E-03
564770_4183530	564770	4183530	3.24E-03	1.33E-03	4.56E-03	Block 1	6.19E-08	1.50E-06	1.65E-06	1.83E-07	3.40	0.00	3.24E-03	1.33E-03	4.56E-03
564790_4183530	564790	4183530	0.00E+00	0.00E+00	0.00E+00	Omit	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00	0.00	0.00E+00	0.00E+00	0.00E+00
564290_4183550	564290	4183550	1.75E-04	1.68E-04	3.42E-04	potential residence	4.64E-09	1.12E-07	1.24E-07	1.38E-08	0.25	0.00	1.75E-04	1.68E-04	3.42E-04
564310_4183550	564310	4183550	1.79E-04	1.78E-04	3.56E-04	potential residence	4.83E-09	1.17E-07	1.29E-07	1.43E-08	0.27	0.00	1.79E-04	1.78E-04	3.56E-04
564330_4183550	564330	4183550	1.84E-04	1.89E-04	3.72E-04	potential residence	5.05E-09	1.22E-07	1.35E-07	1.50E-08	0.28	0.00	1.84E-04	1.89E-04	3.72E-04
564350_4183550	564350	4183550	1.95E-04	2.01E-04	3.96E-04	potential residence	5.37E-09	1.30E-07	1.43E-07	1.59E-08	0.29	0.00	1.95E-04	2.01E-04	3.96E-04
564370_4183550	564370	4183550	2.02E-04	2.17E-04	4.19E-04	potential residence	5.68E-09	1.37E-07	1.52E-07	1.68E-08	0.31	0.00	2.02E-04	2.17E-04	4.19E-04
564390_4183550	564390	4183550	2.14E-04	2.35E-04	4.49E-04	potential residence	6.09E-09	1.48E-07	1.63E-07	1.80E-08	0.33	0.00	2.14E-04	2.35E-04	4.49E-04
564430_4183550	564430	4183550	2.42E-04	2.87E-04	5.29E-04	potential residence	7.18E-09	1.74E-07	1.92E-07	2.13E-08	0.39	0.00	2.42E-04	2.87E-04	5.29E-04
564470_4183550	564470	4183550	2.79E-04	3.86E-04	6.65E-04	potential residence	9.02E-09	2.18E-07	2.41E-07	2.67E-08	0.49	0.00	2.79E-04	3.86E-04	6.65E-04
564490_4183550	564490	4183550	2.72E-04	5.11E-04	7.83E-04	potential residence	1.06E-08	2.57E-07	2.83E-07	3.15E-08	0.58	0.00	2.72E-04	5.11E-04	7.83E-04
564510_4183550	564510	4183550	2.67E-04	6.47E-04	9.13E-04	potential residence	1.24E-08	3.00E-07	3.31E-07	3.67E-08	0.68	0.00	2.67E-04	6.47E-04	9.13E-04
564530_4183550	564530	4183550	2.74E-04	8.04E-04	1.08E-03	potential residence	1.46E-08	3.54E-07	3.90E-07	4.33E-08	0.80	0.00	2.74E-04	8.04E-04	1.08E-03
564550_4183550	564550	4183550	3.27E-04	1.05E-03	1.37E-03	Block 2	1.86E-08	4.51E-07	4.97E-07	5.52E-08	1.02	0.00	3.27E-04	1.05E-03	1.37E-03
564570_4183550	564570	4183550	3.85E-04	1.38E-03	1.77E-03	Building D	2.40E-08	5.81E-07	6.40E-07	7.11E-08	1.32	0.00	3.85E-04	1.38E-03	1.77E-03
564590_4183550	564590	4183550	3.80E-04	2.12E-03	2.50E-03	Building D	3.39E-08	8.21E-07	9.05E-07	1.00E-07	1.86	0.00	3.80E-04	2.12E-03	2.50E-03
564610_4183550	564610	4183550	3.19E-04	3.15E-03	3.47E-03	Building C	4.71E-08	1.14E-06	1.26E-06	1.39E-07	2.58	0.00	3.19E-04	3.15E-03	3.47E-03
564630_4183550	564630	4183550	2.05E-04	3.80E-03	4.01E-03	Block 2	5.43E-08	1.32E-06	1.45E-06	1.61E-07	2.98	0.00	2.05E-04	3.80E-03	4.01E-03
564690_4183550	564690	4183550	3.54E-04	2.59E-03	2.95E-03	Block 1	4.00E-08	9.68E-07	1.07E-06	1.18E-07	2.19	0.00	3.54E-04	2.59E-03	2.95E-03
564710_4183550	564710	4183550	6.32E-04	2.33E-03	2.96E-03	Building B	4.01E-08	9.72E-07	1.07E-06	1.19E-07	2.20	0.00	6.32E-04	2.33E-03	2.96E-03
564730_4183550	564730	4183550	1.47E-03	2.12E-03	3.59E-03	Block 1	4.86E-08	1.18E-06	1.30E-06	1.44E-07	2.67	0.00	1.47E-03	2.12E-03	3.59E-03
564750_4183550	564750	4183550	3.67E-03	1.79E-03	5.46E-03	Building A	7.40E-08	1.79E-06	1.97E-06	2.19E-07	4.06	0.00	3.67E-03	1.79E-03	5.46E-03
564770_4183550	564770	4183550	5.91E-03	1.19E-03	7.10E-03	Building A	9.63E-08	2.33E-06	2.57E-06	2.85E-07	5.28	0.00	5.91E-03	1.19E-03	7.10E-03
564790_4183550	564790	4183550	5.65E-03	8.93E-04	6.55E-03	Building A	8.88E-08	2.15E-06	2.37E-06	2.63E-07	4.87	0.00	5.65E-03	8.93E-04	6.55E-03
564250_4183570	564250	4183570	1.52E-04	1.49E-04	3.00E-04	potential residence	4.07E-09	9.87E-08	1.09E-07	1.21E-08	0.22	0.00	1.52E-04	1.49E-04	3.00E-04
564270_4183570	564270	4183570	1.55E-04	1.57E-04	3.12E-04	potential residence	4.23E-09	1.02E-07	1.13E-07	1.25E-08	0.23	0.00	1.55E-04	1.57E-04	3.12E-04
564290_4183570	564290	4183570	1.62E-04	1.63E-04	3.25E-04	potential residence	4.40E-09	1.07E-07	1.17E-07	1.30E-08	0.24	0.00	1.62E-04	1.63E-04	3.25E-04
564310_4183570	564310	4183570	1.68E-04	1.70E-04	3.38E-04	potential residence	4.58E-09	1.11E-07	1.22E-07	1.36E-08	0.25	0.00	1.68E-04	1.70E-04	3.38E-04
564330_4183570	564330	4183570	1.72E-04	1.79E-04	3.52E-04	potential residence	4.77E-09	1.15E-07	1.27E-07	1.41E-08	0.26	0.00	1.72E-04	1.79E-04	3.52E-04
564350_4183570	564350	4183570	1.78E-04	1.89E-04	3.66E-04	potential residence	4.97E-09	1.20E-07	1.33E-07	1.47E-08	0.27	0.00	1.78E-04	1.89E-04	3.66E-04
564370_4183570	564370	4183570	1.86E-04	2.04E-04	3.90E-04	potential residence	5.29E-09	1.28E-07	1.41E-07	1.57E-08	0.29	0.00	1.86E-04	2.04E-04	3.90E-04
564390_4183570	564390	4183570	1.95E-04	2.19E-04	4.14E-04	potential residence	5.62E-09	1.36E-07	1.50E-07	1.66E-08	0.31	0.00	1.95E-04	2.19E-04	4.14E-04
564430_4183570	564430	4183570	2.14E-04	2.71E-04	4.85E-04	potential residence	6.58E-09	1.59E-07	1.76E-07	1.95E-08	0.36	0.00	2.14E-04	2.71E-04	4.85E-04
564450_4183570	564450	4183570	2.26E-04	3.00E-04	5.26E-04	potential residence	7.14E-09	1.73E-07	1.91E-07	2.12E-08	0.39	0.00	2.26E-04	3.00E-04	5.26E-04
564470_4183570	564470	4183570	2.40E-04	3.36E-04	5.76E-04	potential residence	7.81E-09	1.89E-07	2.08E-07	2.31E-08	0.43	0.00	2.40E-04	3.36E-04	5.76E-04
564490_4183570	564490	4183570	2.38E-04	4.37E-04	6.75E-04	potential residence	9.16E-09	2.22E-07	2.44E-07	2.71E-08	0.50	0.00	2.38E-04	4.37E-04	6.75E-04
564510_4183570	564510	4183570	2.34E-04	5.81E-04	8.15E-04	potential residence	1.10E-08	2.68E-07	2.95E-07	3.27E-08	0.61	0.00	2.34E-04	5.81E-04	8.15E-04
564530_4183570	564530	4183570	2.35E-04	6.97E-04	9.32E-04	potential residence	1.26E-08	3.06E-07	3.37E-07	3.75E-08	0.69	0.00	2.35E-04	6.97E-04	9.32E-04
564550_4183570	564550	4183570	2.43E-04	8.21E-04	1.06E-03	potential residence	1.44E-08	3.49E-07	3.85E-07	4.27E-08	0.79	0.00	2.43E-04	8.21E-04	1.06E-03
564570_4183570	564570	4183570	2.50E-04	9.52E-04	1.20E-03	Building D	1.63E-08	3.95E-07	4.35E-07	4.83E-08	0.90	0.00	2.50E-04	9.52E-04	1.20E-03
564590_4183570	564590	4183570	2.59E-04	1.27E-03	1.53E-03	Block 2	2.07E-08	5.02E-07	5.53E-07	6.15E-08	1.14	0.00	2.59E-04	1.27E-03	1.53E-03
564690_4183570	564690	4183570	5.76E-04	1.88E-03	2.46E-03	Block 1	3.34E-08	8.08E-07	8.90E-07	9.88E-08	1.83	0.00	5.76E-04	1.88E-03	2.46E-03
564710_4183570	564710	4183570	9.55E-04	1.77E-03	2.72E-03	Block 1	3.69E-08	8.95E-07	9.86E-07	1.09E-07	2.03	0.00	9.55E-04	1.77E-03	2.72E-03
564730_4183570	564730	4183570	1.84E-03	1.68E-03	3.52E-03	Building A	4.77E-08	1.15E-06	1.27E-06	1.41E-07	2.62	0.00	1.84E-03	1.68E-03	3.52E-03
564750_4183570	564750	4183570	3.49E-03	1.37E-03	4.86E-03	Building A	6.59E-08	1.60E-06	1.76E-06	1.95E-07	3.62	0.00	3.49E-03	1.37E-03	4.86E-03
564770_4183570	564770	4183570	3.10E-03	9.31E-04	4.03E-03	Building A	5.46E-08	1.32E-06	1.46E-06	1.62E-07	3.00	0.00	3.10E-03	9.31E-04	4.03E-03
564230_4183590	564230	4183590	1.40E-04	1.38E-04	2.78E-04	potential residence	3.77E-09	9.12E-08	1.01E-07	1.12E-08	0.21	0.00	1.40E-04	1.38E-04	2.78E-04
564250_4183590	564250	4183590	1.43E-04	1.43E-04	2.86E-04	potential residence	3.87E-09	9.38E-08	1.03E-07	1.15E-08	0.21	0.00	1.43E-04	1.43E-04	2.86E-04
564270_4183590	564270	4183590	1.49E-04	1.48E-04	2.97E-04	potential residence	4.02E-09	9.75E-08	1.07E-07	1.19E-08	0.22	0.00	1.49E-04	1.48E-04	2.97E-04
564290_4183590	564290	4183590	1.53E-04	1.53E-04	3.07E-04	potential residence	4.16E-09	1.01E-07	1.11E-07	1.23E-08	0.23	0.00	1.53E-04	1.53E-04	3.07E-04
564310_4183590	564310	4183590	1.57E-04	1.62E-04	3.19E-04	potential residence	4.33E-09	1.05E-07	1.15E-07	1.28E-08	0.24	0.00	1.57E-04	1.62E-04	3.19E-04
564330_4183590	564330	4183590	1.63E-04	1.69E-04	3.31E-04	potential residence	4.50E-09	1.09E-07	1.20E-07	1.33E-08	0.25	0.00	1.63E-04	1.69E-04	3.31E-04
564350_4183590	564350	4183590	1.68E-04	1.79E-04	3.47E-04	potential residence	4.70E-09	1.14E-07	1.25E-07	1.39E-08	0.26	0.00	1.68E-04	1.79E-04	3.47E-04
564370_4183590	564370	4183590	1.76E-04	1.90E-04	3.66E-04	potential residence	4.97E-09	1.20E-07	1.33E-07	1.47E-08	0.27	0.00	1.76E-04	1.90E-04	3.66E-04
564390_4183590	564390	4183590	1.85E-04	2.07E-04	3.92E-04	potential residence	5.31E-09	1.29E-07	1.42E-07	1.57E-08	0.29	0.00	1.85E-04	2.07E-04	3.92E-04
564410_4183590	564410	4183590	1.95E-04	2.28E-04	4.23E-04	potential residence	5.74E-09	1.39E-07	1.53E-07	1.70E-08	0.32	0.00	1.95E-04	2.28E-04	4.23E-04
564430_4183590	564430	4183590	2.05E-04	2.49E-04	4.54E-04	potential residence	6.16E-09	1.49E-07	1.65E-07	1.83E-08	0.34	0.00	2.05E-04	2.49E-04	4.54E-04
564450_4183590	564450	4183590	2.13E-04	2.82E-04	4.96E-04	potential residence	6.72E-09	1.63E-07	1.79E-07	1.99E-08	0.37	0.00	2.13E-04	2.82E-04	4.96E-04
564470_4183590	564470	4183590	2.24E-04	3.11E-04	5.35E-04	potential residence	7.25E-09	1.76E-07	1.94E-07	2.15E-08	0.40	0.00	2.24E-04	3.11E-04	5.35E-04
564490_4183590	564490	4183590	2.35E-04	3.67E-04	6.02E-04	potential residence	8.17E-09	1.98E-07	2.18E-07	2.42E-08	0.45	0.00	2.35E-04	3.67E-04	6.02E-04
564510_4183590	564510	4183590	2.46E-04	4.96E-04	7.42E-04	potential residence	1.01E-08	2.44E-07	2.69E-07	2.98E-08	0.55	0.00	2.46E-04	4.96E-04	7.42E-04
564530_4183590	564530	4183590	2.65E-04	5.88E-04	8.53E-04	potential residence	1.16E-08	2.80E-07	3.09E-07	3.43E-08	0.63	0.00	2.65E-04	5.88E-04	8.53E-04
564710_4183590	564710	4183590	1.07E-03	1.30E-03	2.38E-03	Block 1	3.22E-08	7.80E-07	8.60E-07	9.55E-08	1.77	0.00	1.07E-03	1.30E-03	2.38E-03
564730_4183590	564730	4183590	1.46E-03	1.21E-03	2.67E-03	Building A	3.63E-08	8.78E-07	9.68E-07	1.07E-07	1.99	0.00	1.46E-03	1.21E-03	2.67E-03
564230_4183610	564230	4183610	1.41E-04	1.32E-04	2.73E-04	potential residence	3.70E-09	8.96E-08	9.87E-08	1.10E-08	0.20	0.00	1.41E-04	1.32E-04	2.73E-04
564250_4183610	564250	4183610	1.43E-04	1.38E-04	2.81E-04	potential residence	3.81E-09	9.23E-08	1.02E-07	1.13E-08	0.21	0.00	1.43E-04	1.38E-04	2.81E-04

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2 | HI | PM2.5

			Annual O&M			Receptor Type	$\sum R1*C_{DPM}$					C_{DPM}/REL	Annual O&M		
Lookup	X (UTM)	Y (UTM	Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total		Bldg A	Bldg C	Total
564270_4183610	564270	4183610	1.49E-04	1.43E-04	2.92E-04	potential residence	3.96E-09	9.59E-08	1.06E-07	1.17E-08	0.22	0.00	1.49E-04	1.43E-04	2.92E-04
564290_4183610	564290	4183610	1.54E-04	1.46E-04	2.99E-04	potential residence	4.06E-09	9.84E-08	1.08E-07	1.20E-08	0.22	0.00	1.54E-04	1.46E-04	2.99E-04
564310_4183610	564310	4183610	1.61E-04	1.53E-04	3.14E-04	potential residence	4.26E-09	1.03E-07	1.14E-07	1.26E-08	0.23	0.00	1.61E-04	1.53E-04	3.14E-04
564330_4183610	564330	4183610	1.66E-04	1.61E-04	3.27E-04	potential residence	4.43E-09	1.07E-07	1.18E-07	1.31E-08	0.24	0.00	1.66E-04	1.61E-04	3.27E-04
564350_4183610	564350	4183610	1.73E-04	1.69E-04	3.42E-04	potential residence	4.63E-09	1.12E-07	1.24E-07	1.37E-08	0.25	0.00	1.73E-04	1.69E-04	3.42E-04
564370_4183610	564370	4183610	1.80E-04	1.82E-04	3.62E-04	potential residence	4.91E-09	1.19E-07	1.31E-07	1.45E-08	0.27	0.00	1.80E-04	1.82E-04	3.62E-04
564390_4183610	564390	4183610	1.85E-04	1.96E-04	3.81E-04	potential residence	5.17E-09	1.25E-07	1.38E-07	1.53E-08	0.28	0.00	1.85E-04	1.96E-04	3.81E-04
564410_4183610	564410	4183610	1.91E-04	2.14E-04	4.06E-04	potential residence	5.50E-09	1.33E-07	1.47E-07	1.63E-08	0.30	0.00	1.91E-04	2.14E-04	4.06E-04
564430_4183610	564430	4183610	2.01E-04	2.34E-04	4.35E-04	potential residence	5.90E-09	1.43E-07	1.57E-07	1.75E-08	0.32	0.00	2.01E-04	2.34E-04	4.35E-04
564450_4183610	564450	4183610	2.11E-04	2.60E-04	4.71E-04	potential residence	6.39E-09	1.55E-07	1.71E-07	1.89E-08	0.35	0.00	2.11E-04	2.60E-04	4.71E-04
564470_4183610	564470	4183610	2.21E-04	2.89E-04	5.11E-04	potential residence	6.92E-09	1.68E-07	1.85E-07	2.05E-08	0.38	0.00	2.21E-04	2.89E-04	5.11E-04
564490_4183610	564490	4183610	2.34E-04	3.25E-04	5.59E-04	potential residence	7.58E-09	1.84E-07	2.02E-07	2.25E-08	0.42	0.00	2.34E-04	3.25E-04	5.59E-04
564510_4183610	564510	4183610	2.51E-04	4.18E-04	6.69E-04	potential residence	9.07E-09	2.20E-07	2.42E-07	2.69E-08	0.50	0.00	2.51E-04	4.18E-04	6.69E-04
564750_4183610	564750	4183610	1.01E-03	6.26E-04	1.64E-03	potential residence	2.22E-08	5.38E-07	5.93E-07	6.58E-08	1.22	0.00	1.01E-03	6.26E-04	1.64E-03
564770_4183610	564770	4183610	9.50E-04	5.85E-04	1.53E-03	potential residence	2.08E-08	5.04E-07	5.56E-07	6.17E-08	1.14	0.00	9.50E-04	5.85E-04	1.53E-03
564830_4183610	564830	4183610	1.71E-03	4.97E-04	2.20E-03	potential residence	2.99E-08	7.24E-07	7.98E-07	8.86E-08	1.64	0.00	1.71E-03	4.97E-04	2.20E-03
564250_4183630	564250	4183630	1.47E-04	1.32E-04	2.79E-04	potential residence	3.78E-09	9.15E-08	1.01E-07	1.12E-08	0.21	0.00	1.47E-04	1.32E-04	2.79E-04
564270_4183630	564270	4183630	1.51E-04	1.35E-04	2.86E-04	potential residence	3.88E-09	9.39E-08	1.03E-07	1.15E-08	0.21	0.00	1.51E-04	1.35E-04	2.86E-04
564290_4183630	564290	4183630	1.58E-04	1.39E-04	2.97E-04	potential residence	4.03E-09	9.76E-08	1.08E-07	1.19E-08	0.22	0.00	1.58E-04	1.39E-04	2.97E-04
564310_4183630	564310	4183630	1.62E-04	1.44E-04	3.06E-04	potential residence	4.15E-09	1.00E-07	1.11E-07	1.23E-08	0.23	0.00	1.62E-04	1.44E-04	3.06E-04
564330_4183630	564330	4183630	1.65E-04	1.50E-04	3.15E-04	potential residence	4.27E-09	1.03E-07	1.14E-07	1.27E-08	0.23	0.00	1.65E-04	1.50E-04	3.15E-04
564350_4183630	564350	4183630	1.71E-04	1.62E-04	3.33E-04	potential residence	4.51E-09	1.09E-07	1.20E-07	1.34E-08	0.25	0.00	1.71E-04	1.62E-04	3.33E-04
564370_4183630	564370	4183630	1.78E-04	1.73E-04	3.51E-04	potential residence	4.75E-09	1.15E-07	1.27E-07	1.41E-08	0.26	0.00	1.78E-04	1.73E-04	3.51E-04
564390_4183630	564390	4183630	1.81E-04	1.85E-04	3.66E-04	potential residence	4.96E-09	1.20E-07	1.32E-07	1.47E-08	0.27	0.00	1.81E-04	1.85E-04	3.66E-04
564410_4183630	564410	4183630	1.88E-04	2.01E-04	3.90E-04	potential residence	5.28E-09	1.28E-07	1.41E-07	1.57E-08	0.29	0.00	1.88E-04	2.01E-04	3.90E-04
564430_4183630	564430	4183630	1.97E-04	2.21E-04	4.17E-04	potential residence	5.66E-09	1.37E-07	1.51E-07	1.68E-08	0.31	0.00	1.97E-04	2.21E-04	4.17E-04
564450_4183630	564450	4183630	2.08E-04	2.41E-04	4.49E-04	potential residence	6.09E-09	1.47E-07	1.62E-07	1.80E-08	0.33	0.00	2.08E-04	2.41E-04	4.49E-04
564470_4183630	564470	4183630	2.18E-04	2.58E-04	4.76E-04	potential residence	6.45E-09	1.56E-07	1.72E-07	1.91E-08	0.35	0.00	2.18E-04	2.58E-04	4.76E-04
564690_4183630	564690	4183630	6.09E-04	5.83E-04	1.19E-03	potential residence	1.62E-08	3.92E-07	4.32E-07	4.79E-08	0.89	0.00	6.09E-04	5.83E-04	1.19E-03
564750_4183630	564750	4183630	7.73E-04	4.88E-04	1.26E-03	potential residence	1.71E-08	4.14E-07	4.56E-07	5.07E-08	0.94	0.00	7.73E-04	4.88E-04	1.26E-03
564770_4183630	564770	4183630	7.93E-04	4.73E-04	1.27E-03	potential residence	1.72E-08	4.16E-07	4.58E-07	5.09E-08	0.94	0.00	7.93E-04	4.73E-04	1.27E-03
564790_4183630	564790	4183630	8.01E-04	4.60E-04	1.26E-03	potential residence	1.71E-08	4.14E-07	4.56E-07	5.07E-08	0.94	0.00	8.01E-04	4.60E-04	1.26E-03
564810_4183630	564810	4183630	9.66E-04	4.41E-04	1.41E-03	potential residence	1.91E-08	4.62E-07	5.09E-07	5.65E-08	1.05	0.00	9.66E-04	4.41E-04	1.41E-03
564830_4183630	564830	4183630	1.18E-03	4.19E-04	1.60E-03	potential residence	2.17E-08	5.26E-07	5.80E-07	6.44E-08	1.19	0.00	1.18E-03	4.19E-04	1.60E-03
564890_4183630	564890	4183630	1.48E-03	3.62E-04	1.84E-03	potential residence	2.49E-08	6.04E-07	6.65E-07	7.39E-08	1.37	0.00	1.48E-03	3.62E-04	1.84E-03
564910_4183630	564910	4183630	1.48E-03	3.49E-04	1.83E-03	potential residence	2.48E-08	6.01E-07	6.62E-07	7.35E-08	1.36	0.00	1.48E-03	3.49E-04	1.83E-03
564250_4183650	564250	4183650	1.44E-04	1.24E-04	2.68E-04	potential residence	3.63E-09	8.80E-08	9.69E-08	1.08E-08	0.20	0.00	1.44E-04	1.24E-04	2.68E-04
564270_4183650	564270	4183650	1.49E-04	1.29E-04	2.78E-04	potential residence	3.78E-09	9.15E-08	1.01E-07	1.12E-08	0.21	0.00	1.49E-04	1.29E-04	2.78E-04
564290_4183650	564290	4183650	1.52E-04	1.32E-04	2.83E-04	potential residence	3.84E-09	9.30E-08	1.03E-07	1.14E-08	0.21	0.00	1.52E-04	1.32E-04	2.83E-04
564310_4183650	564310	4183650	1.57E-04	1.39E-04	2.96E-04	potential residence	4.02E-09	9.73E-08	1.07E-07	1.19E-08	0.22	0.00	1.57E-04	1.39E-04	2.96E-04
564330_4183650	564330	4183650	1.64E-04	1.47E-04	3.11E-04	potential residence	4.21E-09	1.02E-07	1.12E-07	1.25E-08	0.23	0.00	1.64E-04	1.47E-04	3.11E-04
564350_4183650	564350	4183650	1.69E-04	1.56E-04	3.25E-04	potential residence	4.40E-09	1.07E-07	1.18E-07	1.31E-08	0.24	0.00	1.69E-04	1.56E-04	3.25E-04
564370_4183650	564370	4183650	1.71E-04	1.64E-04	3.35E-04	potential residence	4.55E-09	1.10E-07	1.21E-07	1.35E-08	0.25	0.00	1.71E-04	1.64E-04	3.35E-04
564390_4183650	564390	4183650	1.75E-04	1.76E-04	3.51E-04	potential residence	4.76E-09	1.15E-07	1.27E-07	1.41E-08	0.26	0.00	1.75E-04	1.76E-04	3.51E-04
564410_4183650	564410	4183650	1.81E-04	1.89E-04	3.70E-04	potential residence	5.02E-09	1.22E-07	1.34E-07	1.49E-08	0.28	0.00	1.81E-04	1.89E-04	3.70E-04
564430_4183650	564430	4183650	1.87E-04	2.01E-04	3.88E-04	potential residence	5.26E-09	1.27E-07	1.40E-07	1.56E-08	0.29	0.00	1.87E-04	2.01E-04	3.88E-04
564450_4183650	564450	4183650	1.94E-04	2.19E-04	4.12E-04	potential residence	5.59E-09	1.35E-07	1.49E-07	1.66E-08	0.31	0.00	1.94E-04	2.19E-04	4.12E-04
564670_4183650	564670	4183650	4.25E-04	4.03E-04	8.28E-04	potential residence	1.12E-08	2.72E-07	3.00E-07	3.33E-08	0.62	0.00	4.25E-04	4.03E-04	8.28E-04
564690_4183650	564690	4183650	4.69E-04	4.06E-04	8.75E-04	potential residence	1.19E-08	2.87E-07	3.17E-07	3.52E-08	0.65	0.00	4.69E-04	4.06E-04	8.75E-04
564710_4183650	564710	4183650	5.93E-04	4.09E-04	1.00E-03	potential residence	1.36E-08	3.29E-07	3.63E-07	4.03E-08	0.75	0.00	5.93E-04	4.09E-04	1.00E-03
564730_4183650	564730	4183650	5.98E-04	4.07E-04	1.01E-03	potential residence	1.36E-08	3.30E-07	3.64E-07	4.04E-08	0.75	0.00	5.98E-04	4.07E-04	1.01E-03
564750_4183650	564750	4183650	6.01E-04	3.90E-04	9.91E-04	potential residence	1.34E-08	3.26E-07	3.59E-07	3.98E-08	0.74	0.00	6.01E-04	3.90E-04	9.91E-04
564770_4183650	564770	4183650	6.34E-04	3.83E-04	1.02E-03	potential residence	1.38E-08	3.34E-07	3.68E-07	4.09E-08	0.76	0.00	6.34E-04	3.83E-04	1.02E-03
564790_4183650	564790	4183650	6.59E-04	3.74E-04	1.03E-03	potential residence	1.40E-08	3.39E-07	3.74E-07	4.15E-08	0.77	0.00	6.59E-04	3.74E-04	1.03E-03
564810_4183650	564810	4183650	7.00E-04	3.61E-04	1.06E-03	potential residence	1.44E-08	3.49E-07	3.84E-07	4.26E-08	0.79	0.00	7.00E-04	3.61E-04	1.06E-03
564830_4183650	564830	4183650	8.25E-04	3.62E-04	1.19E-03	potential residence	1.61E-08	3.90E-07	4.30E-07	4.77E-08	0.88	0.00	8.25E-04	3.62E-04	1.19E-03
564850_4183650	564850	4183650	9.41E-04	3.47E-04	1.29E-03	potential residence	1.75E-08	4.23E-07	4.66E-07	5.18E-08	0.96	0.00	9.41E-04	3.47E-04	1.29E-03
564870_4183650	564870	4183650	1.00E-03	3.34E-04	1.34E-03	potential residence	1.81E-08	4.39E-07	4.84E-07	5.38E-08	1.00	0.00	1.00E-03	3.34E-04	1.34E-03
564890_4183650	564890	4183650	1.05E-03	3.16E-04	1.37E-03	potential residence	1.86E-08	4.49E-07	4.95E-07	5.50E-08	1.02	0.00	1.05E-03	3.16E-04	1.37E-03
564910_4183650	564910	4183650	1.03E-03	3.06E-04	1.34E-03	potential residence	1.81E-08	4.39E-07	4.84E-07	5.37E-08	0.99	0.00	1.03E-03	3.06E-04	1.34E-03
564270_4183670	564270	4183670	1.43E-04	1.22E-04	2.65E-04	potential residence	3.59E-09	8.70E-08	9.58E-08	1.06E-08	0.20	0.00	1.43E-04	1.22E-04	2.65E-04
564290_4183670	564290	4183670	1.46E-04	1.29E-04	2.74E-04	potential residence	3.72E-09	9.01E-08	9.93E-08	1.10E-08	0.20	0.00	1.46E-04	1.29E-04	2.74E-04
564310_4183670	564310	4183670	1.48E-04	1.34E-04	2.82E-04	potential residence	3.83E-09	9.26E-08	1.02E-07	1.13E-08	0.21	0.00	1.48E-04	1.34E-04	2.82E-04
564330_4183670	564330	4183670	1.54E-04	1.41E-04	2.94E-04	potential residence	3.99E-09	9.67E-08	1.07E-07	1.18E-08	0.22	0.00	1.54E-04	1.41E-04	2.94E-04
564350_4183670	564350	4183670	1.56E-04	1.47E-04	3.03E-04	potential residence	4.11E-09	9.95E-08	1.10E-07	1.22E-08	0.23	0.00	1.56E-04	1.47E-04	3.03E-04
564370_4183670	564370	4183670	1.60E-04	1.57E-04	3.17E-04	potential residence	4.30E-09	1.04E-07	1.15E-07	1.27E-08	0.24	0.00	1.60E-04	1.57E-04	3.17E-04
564390_4183670	564390	4183670	1.62E-04	1.66E-04	3.28E-04	potential residence	4.45E-09	1.08E-07	1.19E-07	1.32E-08	0.24	0.00	1.62E-04	1.66E-04	3.28E-04
564410_4183670	564410	4183670	1.67E-04	1.79E-04	3.46E-04	potential residence	4.70E-09	1.14E-07	1.25E-07	1.39E-08	0.26	0.00	1.67E-04	1.79E-04	3.46E-04
564430_4183670	564430	4183670	1.70E-04	1.91E-04	3.61E-04	potential residence	4.89E-09	1.18E-07	1.31E-07	1.45E-08	0.27	0.00	1.70E-04	1.91E-04	3.61E-04
564450_4183670	564450	4183670	1.70E-04	1.97E-04	3.67E-04	potential residence	4.98E-09	1.21E-07	1.33E-07	1.48E-08	0.27	0.00	1.70E-04	1.97E-04	3.67E-04
564470_4183670	564470	4183670	1.77E-04	2.09E-04	3.86E-04	potential residence	5.24E-09	1.27E-07	1.40E-07	1.55E-08	0.29	0.00	1.77E-04	2.09E-04	3.86E-04
564650_4183670	564650	4183670	3.44E-04	3.17E-04	6.60E-04	potential residence	8.95E-09	2.17E-07	2.39E-07	2.65E-08	0.49	0.00	3.44E-04	3.17E-04	6.60E-04
564670_4183670	564670	4183670	3.67E-04	3.26E-04	6.93E-04	potential residence	9.40E-09	2.28E-07	2.51E-07	2.79E-08	0.52	0.00	3.67E-04	3.26E-04	6.93E-04
564730_4183670	564730	4183670	4.61E-04	3.33E-04	7.94E-04	potential residence	1.08E-08	2.61E-07	2.87E-07	3.19E-08	0.59	0.00	4.61E-04	3.33E-04	7.94E-04
564750_4183670	564750	4183670	4.87E-04	3.31E-04	8.17E-04	potential residence	1.11E-08	2.69E-07	2.96E-07	3.29E-08	0.61	0.00	4.87E-04	3.31E-04	8.17E-04
564770_4183670	564770	4183670	5.09E-04	3.26E-04	8.35E-04	potential residence	1.13E-08	2.74E-07	3.02E-07	3.36E-08	0.62	0.00	5.09E-04	3.26E-04	8.35E-04
564790_4183670	564790	4183670	5.25E-04	3.19E-04	8.44E-04	potential residence	1.14E-08	2.77E-07	3.06E-07	3.39E-08	0.63	0.00	5.25E-04	3.19E-04	8.44E-04
564810_4183670	564810	4183670	5.28E-04	3.08E-04	8.36E-04	potential residence	1.13E-08	2.75E-07	3.03E-07	3.36E-08	0.62	0.00	5.28E-04	3.08E-04	8.36E-04
564830_4183670	564830	4183670	5.55E-04	3.05E-04	8.60E-04	potential residence	1.17E-08	2.82E-07	3.11E-07	3.45E-08	0.64	0.00	5.55E-04	3.05E-04	8.60E-04
564850_4183670	564850	4183670	6.11E-04	2.95E-04	9.06E-04	potential residence	1.23E-08	2.98E-07	3.28E-07	3.64E-08	0.67	0.00	6.11E-04	2.95E-04	9.06E-04
564870_4183670	564870	4183670	6.86E-04	2.83E-04	9.68E-04	potential residence	1.31E-08	3.18E-07	3.51E-07	3.89E-08	0.72	0.00	6.86E-04	2.83E-04	9.68E-04
564890_4183670	564890	4183670	7.52E-04	2.81E-04	1.03E-03	potential residence	1.40E-08	3.39E-07	3.74E-07	4.15E-08	0.77	0.00	7.52E-04	2.81E-04	1.03E-03
564910_4183670	564910	4183670	7.87E-04	2.74E-04	1.06E-03	potential residence	1.44E-08	3.49E-07	3.84E-07	4.27E-08	0.79	0.00	7.87E-04	2.74E-04	1.06E-03
564930_4183670	564930	4183670	8.14E-04	2.66E-04	1.08E-03	potential residence	1.47E-08	3.55E-07	3.91E-07	4.34E-08	0.80	0.00	8.14E-04	2.66E-04	1.08E-03
564270_4183690	564270	4183690	1.36E-04	1.20E-04	2.56E-04	potential residence	3.48E-09	8.42E-08	9.28E-08	1.03E-08	0.19	0.00	1.36E-04	1.20E-04	2.56E-04
564290_4183690	564290	4183690	1.38E-04	1.23E-04	2.61E-04	potential residence	3.54E-09	8.56E-08	9.44E-08	1.05E-08	0.19	0.00	1.38E-04	1.23E-04	2.61E-04
564310_4183690	564310	4183690	1.42E-04	1.29E-04	2.71E-04	potential residence	3.68E-09	8.91E-08	9.82E-08	1.09E-08	0.20	0.00	1.42E-04	1.29E-04	2.71E-04
564330_4183690	564330	4183690	1.44E-04	1.35E-04	2.78E-04	potential residence	3.77E-09	9.14E-08	1.01E-07	1.12E-08	0.21	0.00	1.44E-04	1.35E-04	2.78E-04
564350_4183690	564350	4183690	1.48E-04	1.43E-04	2.91E-04	potential residence	3.95E-09	9.56E-08	1.05E-07	1.17E-08	0.22	0.00	1.48E-04	1.43E-04	2.91E-04
564370_4183690	564370	4183690	1.50E-04	1.51E-04	3.01E-04	potential residence	4.08E-09	9.87E-08	1.09E-07	1.21E-08	0.22	0.00	1.50E-04	1.51E-04	3.01E-04
564390_4183690	564390	4183690	1.48E-04	1.59E-04	3.07E-04	potential residence	4.16E-09	1.01E-07	1.11E-07	1.23E-08	0.23	0.00	1.48E-04	1.59E-04	3.07E-04
564410_4183690	564410	4183690	1.51E-04	1.68E-04	3.19E-04	potential residence	4.33E-09	1.05E-07	1.15E-07	1.28E-08	0.24	0.00	1.51E-04	1.68E-04	3.19E-04
564430_4183690	564430	4183690	1.54E-04	1.75E-04	3.29E-04	potential residence	4.46E-09	1.08E-07	1.19E-07	1.32E-08	0.24	0.00	1.54E-04	1.75E-04	3.29E-04
564450_4183690	564450	4183690	1.56E-04	1.82E-04	3.38E-04	potential residence	4.58E-09	1.11E-07	1.22E-07	1.36E-08	0.25	0.00	1.56E-04	1.82E-04	3.38E-04
564470_4183690	564470	4183690	1.57E-04	1.89E-04	3.46E-04	potential residence	4.69E-09	1.14E-07	1.25E-07	1.39E-08	0.26	0.00	1.57E-04	1.89E-04	3.46E-04
564570_4183690	564570	4183690	2.21E-04	2.22E-04	4.43E-04	potential residence	6.01E-09	1.46E-07	1.60E-07	1.78E-08	0.33	0.00	2.21E-04	2.22E-04	4.43E-04
564590_4183690	564590	4183690	2.45E-04	2.28E-04	4.73E-04	potential residence	6.41E-09	1.55E-07	1.71E-07	1.90E-08	0.35	0.00	2.45E-04	2.28E-04	4.73E-04
564650_4183690	564650	4183690	3.04E-04	2.60E-04	5.64E-04	potential residence	7.65E-09	1.85E-07	2.04E-07	2.27E-08	0.42	0.00	3.04E-04	2.60E-04	5.64E-04
564670_4183690	564670	4183690	3.04E-04	2.75E-04	5.79E-04	potential residence	7.85E-09	1.90E-07	2.09E-07	2.33E-08	0.43	0.00	3.04E-04	2.75E-04	5.79E-04
564730_4183690	564730	4183690	3.33E-04	2.77E-04	6.10E-04	potential residence	8.27E-09	2.00E-07	2.21E-07	2.45E-08	0.45	0.00	3.33E-04	2.77E-04	6.10E-04
564750_4183690	564750	4183690	3.59E-04	2.79E-04	6.39E-04	potential residence	8.66E-09	2.10E-07	2.31E-07	2.57E-08	0.48	0.00	3.59E-04	2.79E-04	6.39E-04
564770_4183690	564770	4183690	3.77E-04	2.70E-04	6.48E-04	potential residence	8.78E-09	2.13E-07	2.34E-07	2.60E-08	0.48	0.00	3.77E-04	2.70E-04	6.48E-04
564790_4183690	564790	4183690	3.84E-04	2.65E-04	6.49E-04	potential residence	8.80E-09	2.13E-07	2.35E-07	2.61E-08	0.48	0.00	3.84E-04	2.65E-04	6.49E-04
564810_4183690	564810	4183690	3.86E-04	2.65E-04	6.51E-04	potential residence	8.82E-09	2.14E-07	2.36E-07	2.62E-08	0.48	0.00	3.86E-04	2.65E-04	6.51E-04
564830_4183690	564830	4183690	3.91E-04	2.60E-04	6.51E-04	potential residence	8.83E-09	2.14E-07	2.36E-07	2.62E-08	0.48	0.00	3.91E-04	2.60E-04	6.51E-04
564850_4183690	564850	4183690	4.33E-04	2.58E-04	6.90E-04	potential residence	9.36E-09	2.27E-07	2.50E-07	2.78E-08	0.51	0.00	4.33E-04	2.58E-04	6.90E-04
564870_4183690	564870	4183690	5.04E-04	2.52E-04	7.56E-04	potential residence	1.03E-08	2.48E-07	2.74E-07	3.04E-08	0.56	0.00	5.04E-04	2.52E-04	7.56E-04
564890_4183690	564890	4183690	5.70E-04	2.43E-04	8.14E-04	potential residence	1.10E-08	2.67E-07	2.95E-07	3.27E-08	0.61	0.00	5.70E-04	2.43E-04	8.14E-04
564910_4183690	564910	4183690	6.13E-04	2.37E-04	8.51E-04	potential residence	1.15E-08	2.79E-07	3.08E-07	3.42E-08	0.63	0.00	6.13E-04	2.37E-04	8.51E-04
564930_4183690	564930	4183690	6.37E-04	2.31E-04	8.67E-04	potential residence	1.18E-08	2.85E-07	3.14E-07	3.49E-08	0.65	0.00	6.37E-04	2.31E-04	8.67E-04

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2 | HI | PM2.5

			Annual O&M			Receptor Type	$\sum R1*C_{DPM}$					C_{DPM}/REL	Annual O&M		
Lookup	X (UTM)	Y (UTM	Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total		Bldg A	Bldg C	Total
564290_4183710	564290	4183710	1.30E-04	1.19E-04	2.49E-04	potential residence	3.38E-09	8.18E-08	9.01E-08	1.00E-08	0.19	0.00	1.30E-04	1.19E-04	2.49E-04
564310_4183710	564310	4183710	1.32E-04	1.24E-04	2.56E-04	potential residence	3.47E-09	8.40E-08	9.26E-08	1.03E-08	0.19	0.00	1.32E-04	1.24E-04	2.56E-04
564330_4183710	564330	4183710	1.36E-04	1.32E-04	2.68E-04	potential residence	3.63E-09	8.80E-08	9.69E-08	1.08E-08	0.20	0.00	1.36E-04	1.32E-04	2.68E-04
564350_4183710	564350	4183710	1.34E-04	1.39E-04	2.73E-04	potential residence	3.70E-09	8.97E-08	9.89E-08	1.10E-08	0.20	0.00	1.34E-04	1.39E-04	2.73E-04
564370_4183710	564370	4183710	1.37E-04	1.45E-04	2.82E-04	potential residence	3.82E-09	9.26E-08	1.02E-07	1.13E-08	0.21	0.00	1.37E-04	1.45E-04	2.82E-04
564390_4183710	564390	4183710	1.37E-04	1.51E-04	2.88E-04	potential residence	3.91E-09	9.47E-08	1.04E-07	1.16E-08	0.21	0.00	1.37E-04	1.51E-04	2.88E-04
564410_4183710	564410	4183710	1.38E-04	1.57E-04	2.94E-04	potential residence	3.99E-09	9.67E-08	1.07E-07	1.18E-08	0.22	0.00	1.38E-04	1.57E-04	2.94E-04
564430_4183710	564430	4183710	1.42E-04	1.61E-04	3.02E-04	potential residence	4.10E-09	9.93E-08	1.09E-07	1.21E-08	0.22	0.00	1.42E-04	1.61E-04	3.02E-04
564450_4183710	564450	4183710	1.42E-04	1.66E-04	3.08E-04	potential residence	4.18E-09	1.01E-07	1.12E-07	1.24E-08	0.23	0.00	1.42E-04	1.66E-04	3.08E-04
564470_4183710	564470	4183710	1.48E-04	1.73E-04	3.21E-04	potential residence	4.35E-09	1.05E-07	1.16E-07	1.29E-08	0.24	0.00	1.48E-04	1.73E-04	3.21E-04
564490_4183710	564490	4183710	1.62E-04	1.77E-04	3.39E-04	potential residence	4.60E-09	1.11E-07	1.23E-07	1.36E-08	0.25	0.00	1.62E-04	1.77E-04	3.39E-04
564530_4183710	564530	4183710	1.83E-04	1.89E-04	3.72E-04	potential residence	5.04E-09	1.22E-07	1.35E-07	1.49E-08	0.28	0.00	1.83E-04	1.89E-04	3.72E-04
564550_4183710	564550	4183710	2.01E-04	1.92E-04	3.93E-04	potential residence	5.33E-09	1.29E-07	1.42E-07	1.58E-08	0.29	0.00	2.01E-04	1.92E-04	3.93E-04
564570_4183710	564570	4183710	2.20E-04	1.98E-04	4.18E-04	potential residence	5.66E-09	1.37E-07	1.51E-07	1.68E-08	0.31	0.00	2.20E-04	1.98E-04	4.18E-04
564590_4183710	564590	4183710	2.33E-04	2.02E-04	4.35E-04	potential residence	5.89E-09	1.43E-07	1.57E-07	1.75E-08	0.32	0.00	2.33E-04	2.02E-04	4.35E-04
564650_4183710	564650	4183710	2.53E-04	2.25E-04	4.78E-04	potential residence	6.48E-09	1.57E-07	1.73E-07	1.92E-08	0.36	0.00	2.53E-04	2.25E-04	4.78E-04
564670_4183710	564670	4183710	2.56E-04	2.33E-04	4.89E-04	potential residence	6.63E-09	1.61E-07	1.77E-07	1.96E-08	0.36	0.00	2.56E-04	2.33E-04	4.89E-04
564690_4183710	564690	4183710	2.63E-04	2.41E-04	5.04E-04	potential residence	6.84E-09	1.66E-07	1.82E-07	2.03E-08	0.38	0.00	2.63E-04	2.41E-04	5.04E-04
564710_4183710	564710	4183710	2.64E-04	2.43E-04	5.07E-04	potential residence	6.88E-09	1.67E-07	1.84E-07	2.04E-08	0.38	0.00	2.64E-04	2.43E-04	5.07E-04
564730_4183710	564730	4183710	2.75E-04	2.47E-04	5.22E-04	potential residence	7.08E-09	1.71E-07	1.89E-07	2.10E-08	0.39	0.00	2.75E-04	2.47E-04	5.22E-04
564750_4183710	564750	4183710	2.83E-04	2.39E-04	5.23E-04	potential residence	7.09E-09	1.72E-07	1.89E-07	2.10E-08	0.39	0.00	2.83E-04	2.39E-04	5.23E-04
564770_4183710	564770	4183710	2.92E-04	2.41E-04	5.33E-04	potential residence	7.23E-09	1.75E-07	1.93E-07	2.14E-08	0.40	0.00	2.92E-04	2.41E-04	5.33E-04
564790_4183710	564790	4183710	3.06E-04	2.35E-04	5.41E-04	potential residence	7.34E-09	1.78E-07	1.96E-07	2.17E-08	0.40	0.00	3.06E-04	2.35E-04	5.41E-04
564810_4183710	564810	4183710	3.14E-04	2.30E-04	5.44E-04	potential residence	7.37E-09	1.79E-07	1.97E-07	2.19E-08	0.40	0.00	3.14E-04	2.30E-04	5.44E-04
564830_4183710	564830	4183710	3.22E-04	2.22E-04	5.45E-04	potential residence	7.39E-09	1.79E-07	1.97E-07	2.19E-08	0.41	0.00	3.22E-04	2.22E-04	5.45E-04
564850_4183710	564850	4183710	3.32E-04	2.25E-04	5.57E-04	potential residence	7.55E-09	1.83E-07	2.02E-07	2.24E-08	0.41	0.00	3.32E-04	2.25E-04	5.57E-04
564870_4183710	564870	4183710	3.68E-04	2.21E-04	5.90E-04	potential residence	8.00E-09	1.94E-07	2.13E-07	2.37E-08	0.44	0.00	3.68E-04	2.21E-04	5.90E-04
564890_4183710	564890	4183710	4.21E-04	2.18E-04	6.39E-04	potential residence	8.67E-09	2.10E-07	2.31E-07	2.57E-08	0.48	0.00	4.21E-04	2.18E-04	6.39E-04
564910_4183710	564910	4183710	4.70E-04	2.13E-04	6.83E-04	potential residence	9.26E-09	2.24E-07	2.47E-07	2.74E-08	0.51	0.00	4.70E-04	2.13E-04	6.83E-04
564930_4183710	564930	4183710	5.02E-04	2.05E-04	7.07E-04	potential residence	9.59E-09	2.32E-07	2.56E-07	2.84E-08	0.53	0.00	5.02E-04	2.05E-04	7.07E-04
564950_4183710	564950	4183710	5.09E-04	2.03E-04	7.12E-04	potential residence	9.66E-09	2.34E-07	2.58E-07	2.86E-08	0.53	0.00	5.09E-04	2.03E-04	7.12E-04
564310_4183730	564310	4183730	1.25E-04	1.22E-04	2.48E-04	potential residence	3.36E-09	8.14E-08	8.97E-08	9.95E-09	0.18	0.00	1.25E-04	1.22E-04	2.48E-04
564330_4183730	564330	4183730	1.22E-04	1.27E-04	2.49E-04	potential residence	3.38E-09	8.19E-08	9.03E-08	1.00E-08	0.19	0.00	1.22E-04	1.27E-04	2.49E-04
564350_4183730	564350	4183730	1.26E-04	1.31E-04	2.57E-04	potential residence	3.49E-09	8.45E-08	9.31E-08	1.03E-08	0.19	0.00	1.26E-04	1.31E-04	2.57E-04
564370_4183730	564370	4183730	1.27E-04	1.38E-04	2.65E-04	potential residence	3.60E-09	8.72E-08	9.61E-08	1.07E-08	0.20	0.00	1.27E-04	1.38E-04	2.65E-04
564390_4183730	564390	4183730	1.28E-04	1.43E-04	2.71E-04	potential residence	3.68E-09	8.91E-08	9.81E-08	1.09E-08	0.20	0.00	1.28E-04	1.43E-04	2.71E-04
564410_4183730	564410	4183730	1.33E-04	1.44E-04	2.77E-04	potential residence	3.75E-09	9.09E-08	1.00E-07	1.11E-08	0.21	0.00	1.33E-04	1.44E-04	2.77E-04
564430_4183730	564430	4183730	1.35E-04	1.48E-04	2.83E-04	potential residence	3.84E-09	9.31E-08	1.03E-07	1.14E-08	0.21	0.00	1.35E-04	1.48E-04	2.83E-04
564450_4183730	564450	4183730	1.44E-04	1.53E-04	2.96E-04	potential residence	4.02E-09	9.73E-08	1.07E-07	1.19E-08	0.22	0.00	1.44E-04	1.53E-04	2.96E-04
564470_4183730	564470	4183730	1.53E-04	1.54E-04	3.07E-04	potential residence	4.16E-09	1.01E-07	1.11E-07	1.23E-08	0.23	0.00	1.53E-04	1.54E-04	3.07E-04
564490_4183730	564490	4183730	1.59E-04	1.59E-04	3.18E-04	potential residence	4.31E-09	1.04E-07	1.15E-07	1.28E-08	0.24	0.00	1.59E-04	1.59E-04	3.18E-04
564510_4183730	564510	4183730	1.71E-04	1.63E-04	3.34E-04	potential residence	4.53E-09	1.10E-07	1.21E-07	1.34E-08	0.25	0.00	1.71E-04	1.63E-04	3.34E-04
564530_4183730	564530	4183730	1.86E-04	1.66E-04	3.53E-04	potential residence	4.78E-09	1.16E-07	1.28E-07	1.42E-08	0.26	0.00	1.86E-04	1.66E-04	3.53E-04
564550_4183730	564550	4183730	1.96E-04	1.72E-04	3.68E-04	potential residence	4.99E-09	1.21E-07	1.33E-07	1.48E-08	0.27	0.00	1.96E-04	1.72E-04	3.68E-04
564570_4183730	564570	4183730	2.08E-04	1.77E-04	3.84E-04	potential residence	5.21E-09	1.26E-07	1.39E-07	1.54E-08	0.29	0.00	2.08E-04	1.77E-04	3.84E-04
564590_4183730	564590	4183730	2.18E-04	1.80E-04	3.99E-04	potential residence	5.41E-09	1.31E-07	1.44E-07	1.60E-08	0.30	0.00	2.18E-04	1.80E-04	3.99E-04
564610_4183730	564610	4183730	2.20E-04	1.86E-04	4.06E-04	potential residence	5.50E-09	1.33E-07	1.47E-07	1.63E-08	0.30	0.00	2.20E-04	1.86E-04	4.06E-04
564630_4183730	564630	4183730	2.19E-04	1.94E-04	4.13E-04	potential residence	5.60E-09	1.36E-07	1.49E-07	1.66E-08	0.31	0.00	2.19E-04	1.94E-04	4.13E-04
564650_4183730	564650	4183730	2.20E-04	1.98E-04	4.18E-04	potential residence	5.67E-09	1.37E-07	1.51E-07	1.68E-08	0.31	0.00	2.20E-04	1.98E-04	4.18E-04
564670_4183730	564670	4183730	2.25E-04	2.00E-04	4.25E-04	potential residence	5.77E-09	1.40E-07	1.54E-07	1.71E-08	0.32	0.00	2.25E-04	2.00E-04	4.25E-04
564690_4183730	564690	4183730	2.24E-04	2.08E-04	4.31E-04	potential residence	5.85E-09	1.42E-07	1.56E-07	1.73E-08	0.32	0.00	2.24E-04	2.08E-04	4.31E-04
564710_4183730	564710	4183730	2.33E-04	2.11E-04	4.44E-04	potential residence	6.02E-09	1.46E-07	1.61E-07	1.78E-08	0.33	0.00	2.33E-04	2.11E-04	4.44E-04
564730_4183730	564730	4183730	2.34E-04	2.11E-04	4.45E-04	potential residence	6.03E-09	1.46E-07	1.61E-07	1.79E-08	0.33	0.00	2.34E-04	2.11E-04	4.45E-04
564750_4183730	564750	4183730	2.44E-04	2.08E-04	4.52E-04	potential residence	6.13E-09	1.48E-07	1.64E-07	1.82E-08	0.34	0.00	2.44E-04	2.08E-04	4.52E-04
564770_4183730	564770	4183730	2.49E-04	2.05E-04	4.54E-04	potential residence	6.16E-09	1.49E-07	1.64E-07	1.82E-08	0.34	0.00	2.49E-04	2.05E-04	4.54E-04
564790_4183730	564790	4183730	2.57E-04	2.06E-04	4.63E-04	potential residence	6.28E-09	1.52E-07	1.68E-07	1.86E-08	0.34	0.00	2.57E-04	2.06E-04	4.63E-04
564810_4183730	564810	4183730	2.63E-04	2.00E-04	4.63E-04	potential residence	6.28E-09	1.52E-07	1.68E-07	1.86E-08	0.34	0.00	2.63E-04	2.00E-04	4.63E-04
564830_4183730	564830	4183730	2.69E-04	1.98E-04	4.66E-04	potential residence	6.32E-09	1.53E-07	1.69E-07	1.87E-08	0.35	0.00	2.69E-04	1.98E-04	4.66E-04
564850_4183730	564850	4183730	2.78E-04	1.98E-04	4.75E-04	potential residence	6.44E-09	1.56E-07	1.72E-07	1.91E-08	0.35	0.00	2.78E-04	1.98E-04	4.75E-04
564870_4183730	564870	4183730	2.87E-04	1.94E-04	4.81E-04	potential residence	6.52E-09	1.58E-07	1.74E-07	1.93E-08	0.36	0.00	2.87E-04	1.94E-04	4.81E-04
564890_4183730	564890	4183730	3.16E-04	1.98E-04	5.13E-04	potential residence	6.96E-09	1.69E-07	1.86E-07	2.06E-08	0.38	0.00	3.16E-04	1.98E-04	5.13E-04
564910_4183730	564910	4183730	3.56E-04	1.92E-04	5.47E-04	potential residence	7.42E-09	1.80E-07	1.98E-07	2.20E-08	0.41	0.00	3.56E-04	1.92E-04	5.47E-04
564930_4183730	564930	4183730	3.91E-04	1.91E-04	5.81E-04	potential residence	7.89E-09	1.91E-07	2.11E-07	2.34E-08	0.43	0.00	3.91E-04	1.91E-04	5.81E-04
564950_4183730	564950	4183730	4.11E-04	1.87E-04	5.98E-04	potential residence	8.11E-09	1.97E-07	2.17E-07	2.40E-08	0.45	0.00	4.11E-04	1.87E-04	5.98E-04
564330_4183750	564330	4183750	1.18E-04	1.21E-04	2.38E-04	potential residence	3.23E-09	7.83E-08	8.63E-08	9.58E-09	0.18	0.00	1.18E-04	1.21E-04	2.38E-04
564350_4183750	564350	4183750	1.19E-04	1.25E-04	2.44E-04	potential residence	3.32E-09	8.03E-08	8.85E-08	9.83E-09	0.18	0.00	1.19E-04	1.25E-04	2.44E-04
564370_4183750	564370	4183750	1.20E-04	1.31E-04	2.51E-04	potential residence	3.40E-09	8.24E-08	9.09E-08	1.01E-08	0.19	0.00	1.20E-04	1.31E-04	2.51E-04
564390_4183750	564390	4183750	1.26E-04	1.34E-04	2.60E-04	potential residence	3.52E-09	8.53E-08	9.40E-08	1.04E-08	0.19	0.00	1.26E-04	1.34E-04	2.60E-04
564410_4183750	564410	4183750	1.28E-04	1.36E-04	2.64E-04	potential residence	3.58E-09	8.67E-08	9.55E-08	1.06E-08	0.20	0.00	1.28E-04	1.36E-04	2.64E-04
564430_4183750	564430	4183750	1.36E-04	1.39E-04	2.75E-04	potential residence	3.73E-09	9.03E-08	9.95E-08	1.10E-08	0.20	0.00	1.36E-04	1.39E-04	2.75E-04
564450_4183750	564450	4183750	1.41E-04	1.41E-04	2.81E-04	potential residence	3.81E-09	9.24E-08	1.02E-07	1.13E-08	0.21	0.00	1.41E-04	1.41E-04	2.81E-04
564470_4183750	564470	4183750	1.50E-04	1.41E-04	2.91E-04	potential residence	3.95E-09	9.56E-08	1.05E-07	1.17E-08	0.22	0.00	1.50E-04	1.41E-04	2.91E-04
564490_4183750	564490	4183750	1.61E-04	1.47E-04	3.08E-04	potential residence	4.18E-09	1.01E-07	1.12E-07	1.24E-08	0.23	0.00	1.61E-04	1.47E-04	3.08E-04
564510_4183750	564510	4183750	1.72E-04	1.48E-04	3.20E-04	potential residence	4.34E-09	1.05E-07	1.16E-07	1.29E-08	0.24	0.00	1.72E-04	1.48E-04	3.20E-04
564530_4183750	564530	4183750	1.81E-04	1.51E-04	3.32E-04	potential residence	4.50E-09	1.09E-07	1.20E-07	1.33E-08	0.25	0.00	1.81E-04	1.51E-04	3.32E-04
564550_4183750	564550	4183750	1.88E-04	1.56E-04	3.44E-04	potential residence	4.66E-09	1.13E-07	1.24E-07	1.38E-08	0.26	0.00	1.88E-04	1.56E-04	3.44E-04
564570_4183750	564570	4183750	1.99E-04	1.59E-04	3.58E-04	potential residence	4.86E-09	1.18E-07	1.30E-07	1.44E-08	0.27	0.00	1.99E-04	1.59E-04	3.58E-04
564590_4183750	564590	4183750	1.96E-04	1.64E-04	3.60E-04	potential residence	4.88E-09	1.18E-07	1.30E-07	1.45E-08	0.27	0.00	1.96E-04	1.64E-04	3.60E-04
564610_4183750	564610	4183750	1.96E-04	1.67E-04	3.63E-04	potential residence	4.92E-09	1.19E-07	1.31E-07	1.46E-08	0.27	0.00	1.96E-04	1.67E-04	3.63E-04
564630_4183750	564630	4183750	1.92E-04	1.72E-04	3.65E-04	potential residence	4.95E-09	1.20E-07	1.32E-07	1.47E-08	0.27	0.00	1.92E-04	1.72E-04	3.65E-04
564650_4183750	564650	4183750	2.01E-04	1.72E-04	3.73E-04	potential residence	5.06E-09	1.22E-07	1.35E-07	1.50E-08	0.28	0.00	2.01E-04	1.72E-04	3.73E-04
564670_4183750	564670	4183750	1.94E-04	1.78E-04	3.72E-04	potential residence	5.04E-09	1.22E-07	1.35E-07	1.49E-08	0.28	0.00	1.94E-04	1.78E-04	3.72E-04
564690_4183750	564690	4183750	1.96E-04	1.80E-04	3.77E-04	potential residence	5.11E-09	1.24E-07	1.36E-07	1.51E-08	0.28	0.00	1.96E-04	1.80E-04	3.77E-04
564710_4183750	564710	4183750	2.00E-04	1.87E-04	3.87E-04	potential residence	5.25E-09	1.27E-07	1.40E-07	1.56E-08	0.29	0.00	2.00E-04	1.87E-04	3.87E-04
564730_4183750	564730	4183750	2.03E-04	1.84E-04	3.88E-04	potential residence	5.26E-09	1.27E-07	1.40E-07	1.56E-08	0.29	0.00	2.03E-04	1.84E-04	3.88E-04
564750_4183750	564750	4183750	2.11E-04	1.84E-04	3.95E-04	potential residence	5.36E-09	1.30E-07	1.43E-07	1.59E-08	0.29	0.00	2.11E-04	1.84E-04	3.95E-04
564770_4183750	564770	4183750	2.16E-04	1.84E-04	4.00E-04	potential residence	5.42E-09	1.31E-07	1.45E-07	1.61E-08	0.30	0.00	2.16E-04	1.84E-04	4.00E-04
564790_4183750	564790	4183750	2.20E-04	1.84E-04	4.04E-04	potential residence	5.48E-09	1.33E-07	1.46E-07	1.63E-08	0.30	0.00	2.20E-04	1.84E-04	4.04E-04
564810_4183750	564810	4183750	2.23E-04	1.76E-04	3.99E-04	potential residence	5.42E-09	1.31E-07	1.45E-07	1.60E-08	0.30	0.00	2.23E-04	1.76E-04	3.99E-04
564830_4183750	564830	4183750	2.27E-04	1.78E-04	4.04E-04	potential residence	5.48E-09	1.33E-07	1.46E-07	1.63E-08	0.30	0.00	2.27E-04	1.78E-04	4.04E-04
564850_4183750	564850	4183750	2.36E-04	1.78E-04	4.14E-04	potential residence	5.62E-09	1.36E-07	1.50E-07	1.66E-08	0.31	0.00	2.36E-04	1.78E-04	4.14E-04
564870_4183750	564870	4183750	2.44E-04	1.76E-04	4.20E-04	potential residence	5.69E-09	1.38E-07	1.52E-07	1.69E-08	0.31	0.00	2.44E-04	1.76E-04	4.20E-04
564890_4183750	564890	4183750	2.53E-04	1.75E-04	4.28E-04	potential residence	5.80E-09	1.41E-07	1.55E-07	1.72E-08	0.32	0.00	2.53E-04	1.75E-04	4.28E-04
564910_4183750	564910	4183750	2.75E-04	1.75E-04	4.50E-04	potential residence	6.10E-09	1.48E-07	1.63E-07	1.81E-08	0.33	0.00	2.75E-04	1.75E-04	4.50E-04
564930_4183750	564930	4183750	3.05E-04	1.74E-04	4.79E-04	potential residence	6.49E-09	1.57E-07	1.73E-07	1.92E-08	0.36	0.00	3.05E-04	1.74E-04	4.79E-04
564950_4183750	564950	4183750	3.26E-04	1.68E-04	4.94E-04	potential residence	6.71E-09	1.62E-07	1.79E-07	1.99E-08	0.37	0.00	3.26E-04	1.68E-04	4.94E-04
564370_4183770	564370	4183770	1.22E-04	1.23E-04	2.45E-04	potential residence	3.32E-09	8.04E-08	8.86E-08	9.83E-09	0.18	0.00	1.22E-04	1.23E-04	2.45E-04
564390_4183770	564390	4183770	1.25E-04	1.26E-04	2.51E-04	potential residence	3.40E-09	8.24E-08	9.08E-08	1.01E-08	0.19	0.00	1.25E-04	1.26E-04	2.51E-04
564410_4183770	564410	4183770	1.29E-04	1.25E-04	2.55E-04	potential residence	3.46E-09	8.37E-08	9.23E-08	1.02E-08	0.19	0.00	1.29E-04	1.25E-04	2.55E-04
564430_4183770	564430	4183770	1.37E-04	1.29E-04	2.66E-04	potential residence	3.60E-09	8.73E-08	9.62E-08	1.07E-08	0.20	0.00	1.37E-04	1.29E-04	2.66E-04
564450_4183770	564450	4183770	1.43E-04	1.29E-04	2.72E-04	potential residence	3.69E-09	8.95E-08	9.86E-08	1.09E-08	0.20	0.00	1.43E-04	1.29E-04	2.72E-04
564470_4183770	564470	4183770	1.52E-04	1.32E-04	2.84E-04	potential residence	3.86E-09	9.34E-08	1.03E-07	1.14E-08	0.21	0.00	1.52E-04	1.32E-04	2.84E-04
564490_4183770	564490	4183770	1.62E-04	1.34E-04	2.96E-04	potential residence	4.01E-09	9.72E-08	1.07E-07	1.19E-08	0.22	0.00	1.62E-04	1.34E-04	2.96E-04
564510_4183770	564510	4183770	1.69E-04	1.37E-04	3.05E-04	potential residence	4.14E-09	1.00E-07	1.11E-07	1.23E-08	0.23	0.00	1.69E-04	1.37E-04	3.05E-04
564530_4183770	564530	4183770	1.73E-04	1.38E-04	3.11E-04	potential residence	4.22E-09	1.02E-07	1.13E-07	1.25E-08	0.23	0.00	1.73E-04	1.38E-04	3.11E-04
564550_4183770	564550	4183770	1.79E-04	1.43E-04	3.22E-04	potential residence	4.36E-09	1.06E-07	1.16E-07	1.29E-08	0.24	0.00	1.79E-04	1.43E-04	3.22E-04
564570_4183770	564570	4183770	1.78E-04	1.46E-04	3.24E-04	potential residence	4.40E-09	1.07E-07	1.17E-07	1.30E-08	0.24	0.00	1.78E-04	1.46E-04	3.24E-04
564590_4183770	564590	4183770	1.75E-04	1.48E-04	3.24E-04	potential residence	4.39E-09	1.06E-07	1.17E-07	1.30E-08	0.24	0.00	1.75E-04	1.48E-04	3.24E-04
564610_4183770	564610	4183770	1.77E-04	1.52E-04	3.29E-04	potential residence	4.46E-09	1.08E-07	1.19E-07	1.32E-08	0.24	0.00	1.77E-04	1.52E-04	3.29E-04
564630_4183770	564630	4183770	1.79E-04	1.54E-04	3.34E-04	potential residence	4.52E-09	1.10E-07	1.21E-07	1.34E-08	0.25	0.00	1.79E-04	1.54E-04	3.34E-04

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2 | HI | PM2.5

			Annual O&M			Receptor Type	$\sum R1 * C_{DPM}$					HI	PM2.5 Annual O&M		
Lookup	X (UTM)	Y (UTM	Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total	C_{DPM}/REL	Bldg A	Bldg C	Total
564650_4183770	564650	4183770	1.73E-04	1.58E-04	3.31E-04	potential residence	4.48E-09	1.09E-07	1.20E-07	1.33E-08	0.25	0.00	1.73E-04	1.58E-04	3.31E-04
564670_4183770	564670	4183770	1.71E-04	1.60E-04	3.31E-04	potential residence	4.49E-09	1.09E-07	1.20E-07	1.33E-08	0.25	0.00	1.71E-04	1.60E-04	3.31E-04
564690_4183770	564690	4183770	1.78E-04	1.62E-04	3.39E-04	potential residence	4.60E-09	1.11E-07	1.23E-07	1.36E-08	0.25	0.00	1.78E-04	1.62E-04	3.39E-04
564710_4183770	564710	4183770	1.79E-04	1.67E-04	3.46E-04	potential residence	4.69E-09	1.14E-07	1.25E-07	1.39E-08	0.26	0.00	1.79E-04	1.67E-04	3.46E-04
564730_4183770	564730	4183770	1.84E-04	1.67E-04	3.51E-04	potential residence	4.76E-09	1.15E-07	1.27E-07	1.41E-08	0.26	0.00	1.84E-04	1.67E-04	3.51E-04
564750_4183770	564750	4183770	1.88E-04	1.67E-04	3.55E-04	potential residence	4.82E-09	1.17E-07	1.29E-07	1.43E-08	0.26	0.00	1.88E-04	1.67E-04	3.55E-04
564770_4183770	564770	4183770	1.92E-04	1.66E-04	3.58E-04	potential residence	4.85E-09	1.17E-07	1.29E-07	1.44E-08	0.27	0.00	1.92E-04	1.66E-04	3.58E-04
564790_4183770	564790	4183770	1.91E-04	1.64E-04	3.55E-04	potential residence	4.81E-09	1.16E-07	1.28E-07	1.43E-08	0.26	0.00	1.91E-04	1.64E-04	3.55E-04
564810_4183770	564810	4183770	1.95E-04	1.59E-04	3.53E-04	potential residence	4.79E-09	1.16E-07	1.28E-07	1.42E-08	0.26	0.00	1.95E-04	1.59E-04	3.53E-04
564830_4183770	564830	4183770	1.97E-04	1.57E-04	3.54E-04	potential residence	4.79E-09	1.16E-07	1.28E-07	1.42E-08	0.26	0.00	1.97E-04	1.57E-04	3.54E-04
564850_4183770	564850	4183770	2.05E-04	1.63E-04	3.68E-04	potential residence	5.00E-09	1.21E-07	1.33E-07	1.48E-08	0.27	0.00	2.05E-04	1.63E-04	3.68E-04
564870_4183770	564870	4183770	2.11E-04	1.62E-04	3.73E-04	potential residence	5.06E-09	1.23E-07	1.35E-07	1.50E-08	0.28	0.00	2.11E-04	1.62E-04	3.73E-04
564890_4183770	564890	4183770	2.14E-04	1.62E-04	3.76E-04	potential residence	5.10E-09	1.23E-07	1.36E-07	1.51E-08	0.28	0.00	2.14E-04	1.62E-04	3.76E-04
564910_4183770	564910	4183770	2.22E-04	1.58E-04	3.80E-04	potential residence	5.15E-09	1.25E-07	1.37E-07	1.53E-08	0.28	0.00	2.22E-04	1.58E-04	3.80E-04
564930_4183770	564930	4183770	2.38E-04	1.58E-04	3.96E-04	potential residence	5.37E-09	1.30E-07	1.43E-07	1.59E-08	0.29	0.00	2.38E-04	1.58E-04	3.96E-04
564410_4183790	564410	4183790	1.30E-04	1.18E-04	2.49E-04	potential residence	3.37E-09	8.17E-08	9.01E-08	1.00E-08	0.19	0.00	1.30E-04	1.18E-04	2.49E-04
564430_4183790	564430	4183790	1.36E-04	1.18E-04	2.55E-04	potential residence	3.45E-09	8.36E-08	9.22E-08	1.02E-08	0.19	0.00	1.36E-04	1.18E-04	2.55E-04
564450_4183790	564450	4183790	1.44E-04	1.20E-04	2.64E-04	potential residence	3.59E-09	8.69E-08	9.57E-08	1.06E-08	0.20	0.00	1.44E-04	1.20E-04	2.64E-04
564470_4183790	564470	4183790	1.52E-04	1.23E-04	2.75E-04	potential residence	3.72E-09	9.02E-08	9.94E-08	1.10E-08	0.20	0.00	1.52E-04	1.23E-04	2.75E-04
564490_4183790	564490	4183790	1.57E-04	1.23E-04	2.80E-04	potential residence	3.79E-09	9.19E-08	1.01E-07	1.12E-08	0.21	0.00	1.57E-04	1.23E-04	2.80E-04
564510_4183790	564510	4183790	1.61E-04	1.24E-04	2.85E-04	potential residence	3.86E-09	9.35E-08	1.03E-07	1.14E-08	0.21	0.00	1.61E-04	1.24E-04	2.85E-04
564530_4183790	564530	4183790	1.64E-04	1.27E-04	2.91E-04	potential residence	3.94E-09	9.54E-08	1.05E-07	1.17E-08	0.22	0.00	1.64E-04	1.27E-04	2.91E-04
564550_4183790	564550	4183790	1.62E-04	1.31E-04	2.94E-04	potential residence	3.98E-09	9.65E-08	1.06E-07	1.18E-08	0.22	0.00	1.62E-04	1.31E-04	2.94E-04
564570_4183790	564570	4183790	1.61E-04	1.34E-04	2.94E-04	potential residence	3.99E-09	9.67E-08	1.07E-07	1.18E-08	0.22	0.00	1.61E-04	1.34E-04	2.94E-04
564590_4183790	564590	4183790	1.62E-04	1.37E-04	2.99E-04	potential residence	4.05E-09	9.81E-08	1.08E-07	1.20E-08	0.22	0.00	1.62E-04	1.37E-04	2.99E-04
564610_4183790	564610	4183790	1.67E-04	1.39E-04	3.05E-04	potential residence	4.14E-09	1.00E-07	1.10E-07	1.23E-08	0.23	0.00	1.67E-04	1.39E-04	3.05E-04
564630_4183790	564630	4183790	1.60E-04	1.40E-04	3.00E-04	potential residence	4.07E-09	9.87E-08	1.09E-07	1.21E-08	0.22	0.00	1.60E-04	1.40E-04	3.00E-04
564650_4183790	564650	4183790	1.55E-04	1.44E-04	2.98E-04	potential residence	4.05E-09	9.80E-08	1.08E-07	1.20E-08	0.22	0.00	1.55E-04	1.44E-04	2.98E-04
564670_4183790	564670	4183790	1.59E-04	1.41E-04	3.00E-04	potential residence	4.06E-09	9.85E-08	1.09E-07	1.20E-08	0.22	0.00	1.59E-04	1.41E-04	3.00E-04
564690_4183790	564690	4183790	1.57E-04	1.45E-04	3.02E-04	potential residence	4.10E-09	9.93E-08	1.09E-07	1.21E-08	0.22	0.00	1.57E-04	1.45E-04	3.02E-04
564710_4183790	564710	4183790	1.60E-04	1.49E-04	3.09E-04	potential residence	4.19E-09	1.01E-07	1.12E-07	1.24E-08	0.23	0.00	1.60E-04	1.49E-04	3.09E-04
564730_4183790	564730	4183790	1.71E-04	1.56E-04	3.27E-04	potential residence	4.43E-09	1.07E-07	1.18E-07	1.31E-08	0.24	0.00	1.71E-04	1.56E-04	3.27E-04
564750_4183790	564750	4183790	1.68E-04	1.53E-04	3.21E-04	potential residence	4.35E-09	1.05E-07	1.16E-07	1.29E-08	0.24	0.00	1.68E-04	1.53E-04	3.21E-04
564770_4183790	564770	4183790	1.70E-04	1.47E-04	3.16E-04	potential residence	4.29E-09	1.04E-07	1.14E-07	1.27E-08	0.24	0.00	1.70E-04	1.47E-04	3.16E-04
564790_4183790	564790	4183790	1.71E-04	1.49E-04	3.20E-04	potential residence	4.34E-09	1.05E-07	1.16E-07	1.29E-08	0.24	0.00	1.71E-04	1.49E-04	3.20E-04
564810_4183790	564810	4183790	1.72E-04	1.50E-04	3.22E-04	potential residence	4.36E-09	1.06E-07	1.17E-07	1.29E-08	0.24	0.00	1.72E-04	1.50E-04	3.22E-04
564830_4183790	564830	4183790	1.72E-04	1.44E-04	3.17E-04	potential residence	4.29E-09	1.04E-07	1.15E-07	1.27E-08	0.24	0.00	1.72E-04	1.44E-04	3.17E-04
564850_4183790	564850	4183790	1.79E-04	1.45E-04	3.24E-04	potential residence	4.39E-09	1.06E-07	1.17E-07	1.30E-08	0.24	0.00	1.79E-04	1.45E-04	3.24E-04
564870_4183790	564870	4183790	1.77E-04	1.50E-04	3.27E-04	potential residence	4.43E-09	1.07E-07	1.18E-07	1.31E-08	0.24	0.00	1.77E-04	1.50E-04	3.27E-04
564890_4183790	564890	4183790	1.83E-04	1.48E-04	3.31E-04	potential residence	4.49E-09	1.09E-07	1.20E-07	1.33E-08	0.25	0.00	1.83E-04	1.48E-04	3.31E-04
564910_4183790	564910	4183790	1.88E-04	1.45E-04	3.33E-04	potential residence	4.52E-09	1.10E-07	1.21E-07	1.34E-08	0.25	0.00	1.88E-04	1.45E-04	3.33E-04
564930_4183790	564930	4183790	1.99E-04	1.43E-04	3.42E-04	potential residence	4.64E-09	1.12E-07	1.24E-07	1.37E-08	0.25	0.00	1.99E-04	1.43E-04	3.42E-04
564450_4183810	564450	4183810	1.43E-04	1.12E-04	2.55E-04	potential residence	3.45E-09	8.37E-08	9.22E-08	1.02E-08	0.19	0.00	1.43E-04	1.12E-04	2.55E-04
564470_4183810	564470	4183810	1.48E-04	1.12E-04	2.60E-04	potential residence	3.53E-09	8.54E-08	9.41E-08	1.05E-08	0.19	0.00	1.48E-04	1.12E-04	2.60E-04
564490_4183810	564490	4183810	1.53E-04	1.12E-04	2.66E-04	potential residence	3.60E-09	8.72E-08	9.61E-08	1.07E-08	0.20	0.00	1.53E-04	1.12E-04	2.66E-04
564510_4183810	564510	4183810	1.48E-04	1.15E-04	2.63E-04	School	3.57E-09	8.65E-08	9.53E-08	1.06E-08	0.20	0.00	1.48E-04	1.15E-04	2.63E-04
564530_4183810	564530	4183810	1.51E-04	1.17E-04	2.69E-04	School	3.64E-09	8.82E-08	9.73E-08	1.08E-08	0.20	0.00	1.51E-04	1.17E-04	2.69E-04
564550_4183810	564550	4183810	1.50E-04	1.21E-04	2.72E-04	potential residence	3.69E-09	8.93E-08	9.84E-08	1.09E-08	0.20	0.00	1.50E-04	1.21E-04	2.72E-04
564570_4183810	564570	4183810	1.47E-04	1.22E-04	2.69E-04	potential residence	3.65E-09	8.83E-08	9.73E-08	1.08E-08	0.20	0.00	1.47E-04	1.22E-04	2.69E-04
564590_4183810	564590	4183810	1.52E-04	1.26E-04	2.78E-04	potential residence	3.76E-09	9.12E-08	1.00E-07	1.12E-08	0.21	0.00	1.52E-04	1.26E-04	2.78E-04
564610_4183810	564610	4183810	1.49E-04	1.29E-04	2.78E-04	potential residence	3.76E-09	9.12E-08	1.00E-07	1.12E-08	0.21	0.00	1.49E-04	1.29E-04	2.78E-04
564630_4183810	564630	4183810	1.42E-04	1.28E-04	2.69E-04	potential residence	3.65E-09	8.85E-08	9.76E-08	1.08E-08	0.20	0.00	1.42E-04	1.28E-04	2.69E-04
564650_4183810	564650	4183810	1.41E-04	1.30E-04	2.71E-04	potential residence	3.67E-09	8.90E-08	9.81E-08	1.09E-08	0.20	0.00	1.41E-04	1.30E-04	2.71E-04
564670_4183810	564670	4183810	1.44E-04	1.30E-04	2.73E-04	potential residence	3.71E-09	8.98E-08	9.89E-08	1.10E-08	0.20	0.00	1.44E-04	1.30E-04	2.73E-04
564690_4183810	564690	4183810	1.44E-04	1.33E-04	2.77E-04	potential residence	3.76E-09	9.11E-08	1.00E-07	1.12E-08	0.21	0.00	1.44E-04	1.33E-04	2.77E-04
564710_4183810	564710	4183810	1.47E-04	1.36E-04	2.83E-04	potential residence	3.84E-09	9.30E-08	1.02E-07	1.14E-08	0.21	0.00	1.47E-04	1.36E-04	2.83E-04
564730_4183810	564730	4183810	1.47E-04	1.35E-04	2.81E-04	potential residence	3.82E-09	9.24E-08	1.02E-07	1.13E-08	0.21	0.00	1.47E-04	1.35E-04	2.81E-04
564750_4183810	564750	4183810	1.51E-04	1.41E-04	2.92E-04	potential residence	3.96E-09	9.58E-08	1.06E-07	1.17E-08	0.22	0.00	1.51E-04	1.41E-04	2.92E-04
564770_4183810	564770	4183810	1.53E-04	1.35E-04	2.88E-04	potential residence	3.90E-09	9.45E-08	1.04E-07	1.16E-08	0.21	0.00	1.53E-04	1.35E-04	2.88E-04
564790_4183810	564790	4183810	1.53E-04	1.35E-04	2.88E-04	potential residence	3.90E-09	9.45E-08	1.04E-07	1.16E-08	0.21	0.00	1.53E-04	1.35E-04	2.88E-04
564810_4183810	564810	4183810	1.52E-04	1.36E-04	2.89E-04	potential residence	3.92E-09	9.49E-08	1.05E-07	1.16E-08	0.22	0.00	1.52E-04	1.36E-04	2.89E-04
564830_4183810	564830	4183810	1.55E-04	1.33E-04	2.88E-04	potential residence	3.90E-09	9.45E-08	1.04E-07	1.16E-08	0.21	0.00	1.55E-04	1.33E-04	2.88E-04
564850_4183810	564850	4183810	1.57E-04	1.33E-04	2.90E-04	potential residence	3.94E-09	9.54E-08	1.05E-07	1.17E-08	0.22	0.00	1.57E-04	1.33E-04	2.90E-04
564870_4183810	564870	4183810	1.63E-04	1.31E-04	2.94E-04	potential residence	3.99E-09	9.67E-08	1.07E-07	1.18E-08	0.22	0.00	1.63E-04	1.31E-04	2.94E-04
564890_4183810	564890	4183810	1.64E-04	1.32E-04	2.97E-04	potential residence	4.02E-09	9.75E-08	1.07E-07	1.19E-08	0.22	0.00	1.64E-04	1.32E-04	2.97E-04
564910_4183810	564910	4183810	1.69E-04	1.37E-04	3.05E-04	potential residence	4.14E-09	1.00E-07	1.11E-07	1.23E-08	0.23	0.00	1.69E-04	1.37E-04	3.05E-04
564930_4183810	564930	4183810	1.72E-04	1.34E-04	3.07E-04	potential residence	4.16E-09	1.01E-07	1.11E-07	1.23E-08	0.23	0.00	1.72E-04	1.34E-04	3.07E-04
564470_4183830	564470	4183830	1.39E-04	1.05E-04	2.44E-04	School	3.31E-09	8.01E-08	8.83E-08	9.81E-09	0.18	0.00	1.39E-04	1.05E-04	2.44E-04
564490_4183830	564490	4183830	1.41E-04	1.06E-04	2.48E-04	School	3.36E-09	8.14E-08	8.97E-08	9.96E-09	0.18	0.00	1.41E-04	1.06E-04	2.48E-04
564510_4183830	564510	4183830	1.42E-04	1.08E-04	2.50E-04	School	3.38E-09	8.20E-08	9.03E-08	1.00E-08	0.19	0.00	1.42E-04	1.08E-04	2.50E-04
564530_4183830	564530	4183830	1.38E-04	1.11E-04	2.49E-04	School	3.37E-09	8.17E-08	9.00E-08	9.99E-09	0.19	0.00	1.38E-04	1.11E-04	2.49E-04
564550_4183830	564550	4183830	1.38E-04	1.12E-04	2.50E-04	School	3.39E-09	8.22E-08	9.06E-08	1.01E-08	0.19	0.00	1.38E-04	1.12E-04	2.50E-04
564570_4183830	564570	4183830	1.41E-04	1.14E-04	2.55E-04	potential residence	3.46E-09	8.38E-08	9.24E-08	1.03E-08	0.19	0.00	1.41E-04	1.14E-04	2.55E-04
564590_4183830	564590	4183830	1.38E-04	1.17E-04	2.55E-04	potential residence	3.46E-09	8.39E-08	9.24E-08	1.03E-08	0.19	0.00	1.38E-04	1.17E-04	2.55E-04
564610_4183830	564610	4183830	1.33E-04	1.19E-04	2.51E-04	potential residence	3.41E-09	8.25E-08	9.09E-08	1.01E-08	0.19	0.00	1.33E-04	1.19E-04	2.51E-04
564630_4183830	564630	4183830	1.30E-04	1.19E-04	2.49E-04	potential residence	3.38E-09	8.19E-08	9.03E-08	1.00E-08	0.19	0.00	1.30E-04	1.19E-04	2.49E-04
564650_4183830	564650	4183830	1.32E-04	1.18E-04	2.50E-04	potential residence	3.39E-09	8.21E-08	9.04E-08	1.00E-08	0.19	0.00	1.32E-04	1.18E-04	2.50E-04
564670_4183830	564670	4183830	1.32E-04	1.20E-04	2.52E-04	potential residence	3.42E-09	8.29E-08	9.14E-08	1.01E-08	0.19	0.00	1.32E-04	1.20E-04	2.52E-04
564690_4183830	564690	4183830	1.31E-04	1.19E-04	2.51E-04	potential residence	3.40E-09	8.24E-08	9.08E-08	1.01E-08	0.19	0.00	1.31E-04	1.19E-04	2.51E-04
564710_4183830	564710	4183830	1.33E-04	1.23E-04	2.56E-04	potential residence	3.47E-09	8.40E-08	9.26E-08	1.03E-08	0.19	0.00	1.33E-04	1.23E-04	2.56E-04
564730_4183830	564730	4183830	1.35E-04	1.22E-04	2.57E-04	potential residence	3.49E-09	8.44E-08	9.31E-08	1.03E-08	0.19	0.00	1.35E-04	1.22E-04	2.57E-04
564750_4183830	564750	4183830	1.37E-04	1.26E-04	2.63E-04	potential residence	3.57E-09	8.65E-08	9.53E-08	1.06E-08	0.20	0.00	1.37E-04	1.26E-04	2.63E-04
564770_4183830	564770	4183830	1.39E-04	1.26E-04	2.65E-04	potential residence	3.59E-09	8.70E-08	9.59E-08	1.07E-08	0.20	0.00	1.39E-04	1.26E-04	2.65E-04
564790_4183830	564790	4183830	1.39E-04	1.25E-04	2.63E-04	potential residence	3.57E-09	8.65E-08	9.54E-08	1.06E-08	0.20	0.00	1.39E-04	1.25E-04	2.63E-04
564810_4183830	564810	4183830	1.38E-04	1.22E-04	2.59E-04	potential residence	3.52E-09	8.52E-08	9.39E-08	1.04E-08	0.19	0.00	1.38E-04	1.22E-04	2.59E-04
564830_4183830	564830	4183830	1.39E-04	1.24E-04	2.63E-04	potential residence	3.57E-09	8.65E-08	9.53E-08	1.06E-08	0.20	0.00	1.39E-04	1.24E-04	2.63E-04
564850_4183830	564850	4183830	1.41E-04	1.23E-04	2.64E-04	potential residence	3.58E-09	8.68E-08	9.56E-08	1.06E-08	0.20	0.00	1.41E-04	1.23E-04	2.64E-04
564870_4183830	564870	4183830	1.44E-04	1.21E-04	2.65E-04	potential residence	3.60E-09	8.72E-08	9.61E-08	1.07E-08	0.20	0.00	1.44E-04	1.21E-04	2.65E-04
564890_4183830	564890	4183830	1.48E-04	1.22E-04	2.70E-04	potential residence	3.66E-09	8.86E-08	9.76E-08	1.08E-08	0.20	0.00	1.48E-04	1.22E-04	2.70E-04
564910_4183830	564910	4183830	1.50E-04	1.22E-04	2.72E-04	potential residence	3.70E-09	8.95E-08	9.86E-08	1.10E-08	0.20	0.00	1.50E-04	1.22E-04	2.72E-04
564930_4183830	564930	4183830	1.54E-04	1.27E-04	2.81E-04	potential residence	3.81E-09	9.23E-08	1.02E-07	1.13E-08	0.21	0.00	1.54E-04	1.27E-04	2.81E-04
564510_4183850	564510	4183850	1.30E-04	1.01E-04	2.31E-04	School	3.13E-09	7.59E-08	8.36E-08	9.29E-09	0.17	0.00	1.30E-04	1.01E-04	2.31E-04
564530_4183850	564530	4183850	1.30E-04	1.03E-04	2.33E-04	School	3.16E-09	7.66E-08	8.44E-08	9.37E-09	0.17	0.00	1.30E-04	1.03E-04	2.33E-04
564550_4183850	564550	4183850	1.32E-04	1.05E-04	2.37E-04	School	3.22E-09	7.79E-08	8.58E-08	9.53E-09	0.18	0.00	1.32E-04	1.05E-04	2.37E-04
564570_4183850	564570	4183850	1.31E-04	1.07E-04	2.38E-04	potential residence	3.23E-09	7.83E-08	8.63E-08	9.58E-09	0.18	0.00	1.31E-04	1.07E-04	2.38E-04
564590_4183850	564590	4183850	1.26E-04	1.09E-04	2.35E-04	potential residence	3.18E-09	7.71E-08	8.50E-08	9.43E-09	0.17	0.00	1.26E-04	1.09E-04	2.35E-04
564610_4183850	564610	4183850	1.23E-04	1.10E-04	2.33E-04	potential residence	3.16E-09	7.65E-08	8.43E-08	9.36E-09	0.17	0.00	1.23E-04	1.10E-04	2.33E-04
564630_4183850	564630	4183850	1.23E-04	1.11E-04	2.34E-04	potential residence	3.17E-09	7.69E-08	8.47E-08	9.41E-09	0.17	0.00	1.23E-04	1.11E-04	2.34E-04
564650_4183850	564650	4183850	1.20E-04	1.12E-04	2.31E-04	potential residence	3.14E-09	7.60E-08	8.37E-08	9.30E-09	0.17	0.00	1.20E-04	1.12E-04	2.31E-04
564670_4183850	564670	4183850	1.21E-04	1.12E-04	2.33E-04	potential residence	3.15E-09	7.64E-08	8.42E-08	9.35E-09	0.17	0.00	1.21E-04	1.12E-04	2.33E-04
564690_4183850	564690	4183850	1.21E-04	1.12E-04	2.33E-04	potential residence	3.16E-09	7.65E-08	8.44E-08	9.37E-09	0.17	0.00	1.21E-04	1.12E-04	2.33E-04
564710_4183850	564710	4183850	1.24E-04	1.13E-04	2.37E-04	potential residence	3.22E-09	7.79E-08	8.58E-08	9.53E-09	0.18	0.00	1.24E-04	1.13E-04	2.37E-04
564730_4183850	564730	4183850	1.24E-04	1.14E-04	2.38E-04	potential residence	3.23E-09	7.83E-08	8.62E-08	9.58E-09	0.18	0.00	1.24E-04	1.14E-04	2.38E-04
564750_4183850	564750	4183850	1.26E-04	1.13E-04	2.39E-04	potential residence	3.24E-09	7.85E-08	8.65E-08	9.61E-09	0.18	0.00	1.26E-04	1.13E-04	2.39E-04
564770_4183850	564770	4183850	1.29E-04	1.19E-04	2.48E-04	potential residence	3.36E-09	8.13E-08	8.96E-08	9.95E-09	0.18	0.00	1.29E-04	1.19E-04	2.48E-04
564790_4183850	564790	4183850	1.27E-04	1.16E-04	2.42E-04	potential residence	3.29E-09	7.96E-08	8.77E-08	9.74E-09	0.18	0.00	1.27E-04	1.16E-04	2.42E-04
564810_4183850	564810	4183850	1.27E-04	1.13E-04	2.40E-04	potential residence	3.25E-09	7.88E-08	8.68E-08	9.64E-09	0.18	0.00	1.27E-04	1.13E-04	2.40E-04
564830_4183850	564830	4183850	1.25E-04	1.13E-04	2.38E-04	potential residence	3.23E-09	7.82E-08	8.62E-08	9.57E-09	0.18	0.00	1.25E-04	1.13E-04	2.38E-04
564850_4183850	564850	4183850	1.29E-04	1.13E-04	2.42E-04	potential residence	3.28E-09	7.94E-08	8.75E-08	9.72E-09	0.18	0.00	1.29E-04	1.13E-04	2.42E-04
564870_4183850	564870	4183850	1.31E-04	1.12E-04	2.43E-04	potential residence	3.29E-09	7.98E-08	8.79E-08	9.76E-09	0.18	0.00	1.31E-04	1.12E-04	2.43E-04

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3) | Risk Calculation Part 2 | HI | PM2.5

			Annual O&M			Receptor Type	$\sum R1*C_{DPM}$					C_{DPM}/REL	Annual O&M		
Lookup	X (UTM)	Y (UTM	Bldg A	Bldg C	Total		3rd Trimester	0<2	2<16	2<16	Total		Bldg A	Bldg C	Total
564890_4183850	564890	4183850	1.33E-04	1.13E-04	2.47E-04	potential residence	3.34E-09	8.10E-08	8.93E-08	9.91E-09	0.18	0.00	1.33E-04	1.13E-04	2.47E-04
564910_4183850	564910	4183850	1.33E-04	1.16E-04	2.49E-04	potential residence	3.38E-09	8.18E-08	9.01E-08	1.00E-08	0.19	0.00	1.33E-04	1.16E-04	2.49E-04
564550_4183870	564550	4183870	1.23E-04	9.89E-05	2.22E-04	School	3.01E-09	7.29E-08	8.03E-08	8.91E-09	0.17	0.00	1.23E-04	9.89E-05	2.22E-04
564570_4183870	564570	4183870	1.21E-04	1.00E-04	2.22E-04	potential residence	3.01E-09	7.28E-08	8.02E-08	8.91E-09	0.16	0.00	1.21E-04	1.00E-04	2.22E-04
564590_4183870	564590	4183870	1.16E-04	1.02E-04	2.18E-04	potential residence	2.96E-09	7.16E-08	7.90E-08	8.77E-09	0.16	0.00	1.16E-04	1.02E-04	2.18E-04
564610_4183870	564610	4183870	1.13E-04	1.03E-04	2.16E-04	potential residence	2.93E-09	7.09E-08	7.81E-08	8.68E-09	0.16	0.00	1.13E-04	1.03E-04	2.16E-04
564630_4183870	564630	4183870	1.14E-04	1.04E-04	2.18E-04	potential residence	2.96E-09	7.16E-08	7.89E-08	8.76E-09	0.16	0.00	1.14E-04	1.04E-04	2.18E-04
564650_4183870	564650	4183870	1.11E-04	1.04E-04	2.15E-04	potential residence	2.92E-09	7.06E-08	7.78E-08	8.64E-09	0.16	0.00	1.11E-04	1.04E-04	2.15E-04
564670_4183870	564670	4183870	1.12E-04	1.04E-04	2.16E-04	potential residence	2.93E-09	7.09E-08	7.81E-08	8.68E-09	0.16	0.00	1.12E-04	1.04E-04	2.16E-04
564690_4183870	564690	4183870	1.14E-04	1.03E-04	2.18E-04	potential residence	2.95E-09	7.15E-08	7.88E-08	8.75E-09	0.16	0.00	1.14E-04	1.03E-04	2.18E-04
564710_4183870	564710	4183870	1.13E-04	1.06E-04	2.19E-04	potential residence	2.98E-09	7.21E-08	7.94E-08	8.82E-09	0.16	0.00	1.13E-04	1.06E-04	2.19E-04
564730_4183870	564730	4183870	1.15E-04	1.04E-04	2.19E-04	potential residence	2.97E-09	7.20E-08	7.93E-08	8.81E-09	0.16	0.00	1.15E-04	1.04E-04	2.19E-04
564750_4183870	564750	4183870	1.18E-04	1.07E-04	2.25E-04	potential residence	3.05E-09	7.39E-08	8.15E-08	9.05E-09	0.17	0.00	1.18E-04	1.07E-04	2.25E-04
564770_4183870	564770	4183870	1.19E-04	1.06E-04	2.25E-04	potential residence	3.05E-09	7.38E-08	8.13E-08	9.03E-09	0.17	0.00	1.19E-04	1.06E-04	2.25E-04
564790_4183870	564790	4183870	1.17E-04	1.08E-04	2.25E-04	potential residence	3.05E-09	7.38E-08	8.13E-08	9.03E-09	0.17	0.00	1.17E-04	1.08E-04	2.25E-04
564810_4183870	564810	4183870	1.17E-04	1.06E-04	2.23E-04	potential residence	3.02E-09	7.32E-08	8.06E-08	8.95E-09	0.17	0.00	1.17E-04	1.06E-04	2.23E-04
564830_4183870	564830	4183870	1.16E-04	1.05E-04	2.21E-04	potential residence	3.00E-09	7.26E-08	8.00E-08	8.88E-09	0.16	0.00	1.16E-04	1.05E-04	2.21E-04
564850_4183870	564850	4183870	1.17E-04	1.03E-04	2.20E-04	potential residence	2.98E-09	7.23E-08	7.97E-08	8.85E-09	0.16	0.00	1.17E-04	1.03E-04	2.20E-04
564870_4183870	564870	4183870	1.19E-04	1.05E-04	2.25E-04	potential residence	3.05E-09	7.39E-08	8.14E-08	9.04E-09	0.17	0.00	1.19E-04	1.05E-04	2.25E-04
564590_4183890	564590	4183890	1.08E-04	9.60E-05	2.04E-04	potential residence	2.77E-09	6.71E-08	7.40E-08	8.21E-09	0.15	0.00	1.08E-04	9.60E-05	2.04E-04
564610_4183890	564610	4183890	1.10E-04	9.51E-05	2.05E-04	potential residence	2.78E-09	6.72E-08	7.41E-08	8.23E-09	0.15	0.00	1.10E-04	9.51E-05	2.05E-04
564630_4183890	564630	4183890	1.06E-04	9.58E-05	2.02E-04	potential residence	2.73E-09	6.62E-08	7.30E-08	8.11E-09	0.15	0.00	1.06E-04	9.58E-05	2.02E-04
564650_4183890	564650	4183890	1.05E-04	9.76E-05	2.03E-04	potential residence	2.75E-09	6.67E-08	7.35E-08	8.16E-09	0.15	0.00	1.05E-04	9.76E-05	2.03E-04
564670_4183890	564670	4183890	1.05E-04	9.72E-05	2.02E-04	potential residence	2.74E-09	6.63E-08	7.31E-08	8.11E-09	0.15	0.00	1.05E-04	9.72E-05	2.02E-04
564690_4183890	564690	4183890	1.08E-04	9.67E-05	2.04E-04	potential residence	2.77E-09	6.72E-08	7.40E-08	8.22E-09	0.15	0.00	1.08E-04	9.67E-05	2.04E-04
564710_4183890	564710	4183890	1.06E-04	9.70E-05	2.03E-04	potential residence	2.75E-09	6.67E-08	7.35E-08	8.16E-09	0.15	0.00	1.06E-04	9.70E-05	2.03E-04
564730_4183890	564730	4183890	1.06E-04	9.79E-05	2.04E-04	potential residence	2.77E-09	6.71E-08	7.39E-08	8.21E-09	0.15	0.00	1.06E-04	9.79E-05	2.04E-04
564750_4183890	564750	4183890	1.09E-04	9.74E-05	2.06E-04	potential residence	2.80E-09	6.78E-08	7.47E-08	8.30E-09	0.15	0.00	1.09E-04	9.74E-05	2.06E-04
564770_4183890	564770	4183890	1.11E-04	1.00E-04	2.11E-04	potential residence	2.86E-09	6.93E-08	7.64E-08	8.48E-09	0.16	0.00	1.11E-04	1.00E-04	2.11E-04
564790_4183890	564790	4183890	1.09E-04	1.01E-04	2.11E-04	potential residence	2.86E-09	6.93E-08	7.63E-08	8.47E-09	0.16	0.00	1.09E-04	1.01E-04	2.11E-04
564810_4183890	564810	4183890	1.09E-04	1.02E-04	2.11E-04	potential residence	2.86E-09	6.92E-08	7.62E-08	8.47E-09	0.16	0.00	1.09E-04	1.02E-04	2.11E-04
564830_4183890	564830	4183890	1.08E-04	1.01E-04	2.09E-04	potential residence	2.84E-09	6.87E-08	7.57E-08	8.40E-09	0.16	0.00	1.08E-04	1.01E-04	2.09E-04
564850_4183890	564850	4183890	1.08E-04	9.93E-05	2.07E-04	potential residence	2.81E-09	6.81E-08	7.50E-08	8.33E-09	0.15	0.00	1.08E-04	9.93E-05	2.07E-04
564630_4183910	564630	4183910	9.88E-05	9.17E-05	1.90E-04	potential residence	2.58E-09	6.26E-08	6.90E-08	7.66E-09	0.14	0.00	9.88E-05	9.17E-05	1.90E-04
564650_4183910	564650	4183910	9.73E-05	9.09E-05	1.88E-04	potential residence	2.55E-09	6.18E-08	6.81E-08	7.56E-09	0.14	0.00	9.73E-05	9.09E-05	1.88E-04
564670_4183910	564670	4183910	9.89E-05	9.07E-05	1.90E-04	potential residence	2.57E-09	6.23E-08	6.86E-08	7.62E-09	0.14	0.00	9.89E-05	9.07E-05	1.90E-04
564690_4183910	564690	4183910	9.95E-05	9.03E-05	1.90E-04	potential residence	2.57E-09	6.24E-08	6.87E-08	7.63E-09	0.14	0.00	9.95E-05	9.03E-05	1.90E-04
564710_4183910	564710	4183910	9.94E-05	9.09E-05	1.90E-04	potential residence	2.58E-09	6.25E-08	6.89E-08	7.65E-09	0.14	0.00	9.94E-05	9.09E-05	1.90E-04
564730_4183910	564730	4183910	9.97E-05	9.21E-05	1.92E-04	potential residence	2.60E-09	6.30E-08	6.94E-08	7.71E-09	0.14	0.00	9.97E-05	9.21E-05	1.92E-04
564750_4183910	564750	4183910	1.02E-04	9.21E-05	1.94E-04	potential residence	2.63E-09	6.37E-08	7.02E-08	7.80E-09	0.14	0.00	1.02E-04	9.21E-05	1.94E-04
564770_4183910	564770	4183910	1.02E-04	9.36E-05	1.96E-04	potential residence	2.66E-09	6.44E-08	7.10E-08	7.88E-09	0.15	0.00	1.02E-04	9.36E-05	1.96E-04
564790_4183910	564790	4183910	1.03E-04	9.43E-05	1.97E-04	potential residence	2.67E-09	6.47E-08	7.13E-08	7.91E-09	0.15	0.00	1.03E-04	9.43E-05	1.97E-04
564810_4183910	564810	4183910	1.02E-04	9.46E-05	1.97E-04	potential residence	2.67E-09	6.46E-08	7.11E-08	7.90E-09	0.15	0.00	1.02E-04	9.46E-05	1.97E-04
564610_4183910	564610	4183910	1.02E-04	9.09E-05	1.93E-04	potential residence	2.61E-09	6.33E-08	6.97E-08	7.74E-09	0.14	0.00	1.02E-04	9.09E-05	1.93E-04
564590_4183910	564590	4183910	1.03E-04	8.95E-05	1.93E-04	potential residence	2.62E-09	6.34E-08	6.99E-08	7.76E-09	0.14	0.00	1.03E-04	8.95E-05	1.93E-04
564570_4183910	564570	4183910	1.05E-04	8.93E-05	1.94E-04	potential residence	2.63E-09	6.37E-08	7.02E-08	7.79E-09	0.14	0.00	1.05E-04	8.93E-05	1.94E-04
564550_4183910	564550	4183910	1.07E-04	8.86E-05	1.95E-04	potential residence	2.65E-09	6.42E-08	7.07E-08	7.85E-09	0.15	0.00	1.07E-04	8.86E-05	1.95E-04
564530_4183910	564530	4183910	1.08E-04	8.56E-05	1.94E-04	potential residence	2.63E-09	6.37E-08	7.02E-08	7.80E-09	0.14	0.00	1.08E-04	8.56E-05	1.94E-04
564510_4183910	564510	4183910	1.13E-04	8.39E-05	1.97E-04	potential residence	2.67E-09	6.46E-08	7.12E-08	7.91E-09	0.15	0.00	1.13E-04	8.39E-05	1.97E-04
564490_4183910	564490	4183910	1.13E-04	8.41E-05	1.97E-04	potential residence	2.68E-09	6.48E-08	7.14E-08	7.93E-09	0.15	0.00	1.13E-04	8.41E-05	1.97E-04
564470_4183910	564470	4183910	1.11E-04	8.16E-05	1.93E-04	School	2.61E-09	6.33E-08	6.98E-08	7.75E-09	0.14	0.00	1.11E-04	8.16E-05	1.93E-04
564450_4183910	564450	4183910	1.12E-04	8.05E-05	1.92E-04	School	2.61E-09	6.31E-08	6.96E-08	7.73E-09	0.14	0.00	1.12E-04	8.05E-05	1.92E-04
564430_4183910	564430	4183910	1.10E-04	8.04E-05	1.90E-04	potential residence	2.58E-09	6.26E-08	6.89E-08	7.65E-09	0.14	0.00	1.10E-04	8.04E-05	1.90E-04
564410_4183910	564410	4183910	1.10E-04	8.21E-05	1.92E-04	potential residence	2.61E-09	6.31E-08	6.95E-08	7.72E-09	0.14	0.00	1.10E-04	8.21E-05	1.92E-04
564390_4183910	564390	4183910	1.12E-04	8.31E-05	1.95E-04	potential residence	2.64E-09	6.39E-08	7.05E-08	7.82E-09	0.14	0.00	1.12E-04	8.31E-05	1.95E-04
564370_4183910	564370	4183910	1.14E-04	8.19E-05	1.96E-04	potential residence	2.66E-09	6.44E-08	7.10E-08	7.88E-09	0.15	0.00	1.14E-04	8.19E-05	1.96E-04
564350_4183910	564350	4183910	1.13E-04	8.18E-05	1.95E-04	potential residence	2.65E-09	6.41E-08	7.07E-08	7.85E-09	0.15	0.00	1.13E-04	8.18E-05	1.95E-04
564570_4183890	564570	4183890	1.13E-04	9.47E-05	2.07E-04	potential residence	2.81E-09	6.81E-08	7.51E-08	8.33E-09	0.15	0.00	1.13E-04	9.47E-05	2.07E-04
564550_4183890	564550	4183890	1.15E-04	9.33E-05	2.08E-04	potential residence	2.82E-09	6.84E-08	7.54E-08	8.37E-09	0.16	0.00	1.15E-04	9.33E-05	2.08E-04
564530_4183890	564530	4183890	1.17E-04	9.15E-05	2.09E-04	potential residence	2.83E-09	6.86E-08	7.56E-08	8.40E-09	0.16	0.00	1.17E-04	9.15E-05	2.09E-04
564510_4183890	564510	4183890	1.19E-04	8.88E-05	2.08E-04	School	2.82E-09	6.82E-08	7.52E-08	8.35E-09	0.15	0.00	1.19E-04	8.88E-05	2.08E-04
564490_4183890	564490	4183890	1.17E-04	8.71E-05	2.04E-04	School	2.77E-09	6.70E-08	7.38E-08	8.20E-09	0.15	0.00	1.17E-04	8.71E-05	2.04E-04
564470_4183890	564470	4183890	1.16E-04	8.52E-05	2.01E-04	School	2.73E-09	6.60E-08	7.28E-08	8.08E-09	0.15	0.00	1.16E-04	8.52E-05	2.01E-04
564450_4183890	564450	4183890	1.18E-04	8.69E-05	2.04E-04	School	2.77E-09	6.72E-08	7.40E-08	8.22E-09	0.15	0.00	1.18E-04	8.69E-05	2.04E-04
564430_4183890	564430	4183890	1.20E-04	8.60E-05	2.06E-04	potential residence	2.79E-09	6.75E-08	7.44E-08	8.26E-09	0.15	0.00	1.20E-04	8.60E-05	2.06E-04
564410_4183890	564410	4183890	1.19E-04	8.59E-05	2.05E-04	potential residence	2.78E-09	6.73E-08	7.42E-08	8.24E-09	0.15	0.00	1.19E-04	8.59E-05	2.05E-04
564390_4183890	564390	4183890	1.22E-04	8.65E-05	2.09E-04	potential residence	2.83E-09	6.85E-08	7.55E-08	8.38E-09	0.16	0.00	1.22E-04	8.65E-05	2.09E-04
564370_4183890	564370	4183890	1.18E-04	8.75E-05	2.05E-04	potential residence	2.78E-09	6.74E-08	7.42E-08	8.24E-09	0.15	0.00	1.18E-04	8.75E-05	2.05E-04
564350_4183890	564350	4183890	1.15E-04	8.63E-05	2.01E-04	potential residence	2.73E-09	6.61E-08	7.29E-08	8.09E-09	0.15	0.00	1.15E-04	8.63E-05	2.01E-04
564530_4183870	564530	4183870	1.25E-04	9.69E-05	2.22E-04	School	3.01E-09	7.28E-08	8.02E-08	8.91E-09	0.16	0.00	1.25E-04	9.69E-05	2.22E-04
564510_4183870	564510	4183870	1.23E-04	9.50E-05	2.18E-04	School	2.96E-09	7.17E-08	7.90E-08	8.77E-09	0.16	0.00	1.23E-04	9.50E-05	2.18E-04
564490_4183870	564490	4183870	1.22E-04	9.22E-05	2.15E-04	School	2.91E-09	7.05E-08	7.77E-08	8.62E-09	0.16	0.00	1.22E-04	9.22E-05	2.15E-04
564470_4183870	564470	4183870	1.22E-04	9.21E-05	2.14E-04	School	2.90E-09	7.03E-08	7.75E-08	8.60E-09	0.16	0.00	1.22E-04	9.21E-05	2.14E-04
564450_4183870	564450	4183870	1.25E-04	9.12E-05	2.16E-04	School	2.93E-09	7.09E-08	7.82E-08	8.68E-09	0.16	0.00	1.25E-04	9.12E-05	2.16E-04
564430_4183870	564430	4183870	1.28E-04	9.20E-05	2.19E-04	School	2.98E-09	7.21E-08	7.94E-08	8.82E-09	0.16	0.00	1.28E-04	9.20E-05	2.19E-04
564410_4183870	564410	4183870	1.27E-04	9.18E-05	2.19E-04	potential residence	2.97E-09	7.20E-08	7.94E-08	8.81E-09	0.16	0.00	1.27E-04	9.18E-05	2.19E-04
564390_4183870	564390	4183870	1.22E-04	9.27E-05	2.15E-04	potential residence	2.91E-09	7.05E-08	7.77E-08	8.63E-09	0.16	0.00	1.22E-04	9.27E-05	2.15E-04
564370_4183870	564370	4183870	1.21E-04	9.24E-05	2.14E-04	potential residence	2.90E-09	7.02E-08	7.74E-08	8.59E-09	0.16	0.00	1.21E-04	9.24E-05	2.14E-04
564350_4183870	564350	4183870	1.16E-04	9.01E-05	2.07E-04	Daycare	2.80E-09	6.78E-08	7.48E-08	8.30E-09	0.15	0.00	1.16E-04	9.01E-05	2.07E-04
564330_4183870	564330	4183870	1.14E-04	9.03E-05	2.04E-04	Daycare	2.77E-09	6.71E-08	7.40E-08	8.21E-09	0.15	0.00	1.14E-04	9.03E-05	2.04E-04
564490_4183850	564490	4183850	1.29E-04	9.84E-05	2.28E-04	School	3.09E-09	7.48E-08	8.25E-08	9.15E-09	0.17	0.00	1.29E-04	9.84E-05	2.28E-04
564470_4183850	564470	4183850	1.30E-04	9.63E-05	2.26E-04	School	3.06E-09	7.42E-08	8.18E-08	9.08E-09	0.17	0.00	1.30E-04	9.63E-05	2.26E-04
564450_4183850	564450	4183850	1.33E-04	9.69E-05	2.30E-04	School	3.12E-09	7.55E-08	8.32E-08	9.24E-09	0.17	0.00	1.33E-04	9.69E-05	2.30E-04
564430_4183850	564430	4183850	1.33E-04	9.70E-05	2.30E-04	School	3.12E-09	7.55E-08	8.32E-08	9.24E-09	0.17	0.00	1.33E-04	9.70E-05	2.30E-04
564410_4183850	564410	4183850	1.30E-04	9.81E-05	2.28E-04	potential residence	3.09E-09	7.48E-08	8.25E-08	9.16E-09	0.17	0.00	1.30E-04	9.81E-05	2.28E-04
564390_4183850	564390	4183850	1.25E-04	9.66E-05	2.22E-04	potential residence	3.01E-09	7.29E-08	8.04E-08	8.93E-09	0.17	0.00	1.25E-04	9.66E-05	2.22E-04
564370_4183850	564370	4183850	1.23E-04	9.49E-05	2.18E-04	potential residence	2.95E-09	7.15E-08	7.88E-08	8.75E-09	0.16	0.00	1.23E-04	9.49E-05	2.18E-04
564350_4183850	564350	4183850	1.16E-04	9.51E-05	2.11E-04	Daycare	2.86E-09	6.92E-08	7.63E-08	8.47E-09	0.16	0.00	1.16E-04	9.51E-05	2.11E-04
564330_4183850	564330	4183850	1.12E-04	9.50E-05	2.07E-04	Daycare	2.81E-09	6.80E-08	7.49E-08	8.31E-09	0.15	0.00	1.12E-04	9.50E-05	2.07E-04
564310_4183850	564310	4183850	1.09E-04	9.57E-05	2.05E-04	Daycare	2.78E-09	6.74E-08	7.42E-08	8.24E-09	0.15	0.00	1.09E-04	9.57E-05	2.05E-04
564450_4183830	564450	4183830	1.38E-04	1.05E-04	2.44E-04	potential residence	3.30E-09	8.00E-08	8.82E-08	9.79E-09	0.18	0.00	1.38E-04	1.05E-04	2.44E-04
564430_4183830	564430	4183830	1.38E-04	1.04E-04	2.41E-04	potential residence	3.27E-09	7.93E-08	8.74E-08	9.70E-09	0.18	0.00	1.38E-04	1.04E-04	2.41E-04
564410_4183830	564410	4183830	1.29E-04	1.03E-04	2.32E-04	potential residence	3.14E-09	7.61E-08	8.39E-08	9.32E-09	0.17	0.00	1.29E-04	1.03E-04	2.32E-04
564390_4183830	564390	4183830	1.29E-04	1.02E-04	2.31E-04	potential residence	3.13E-09	7.58E-08	8.36E-08	9.28E-09	0.17	0.00	1.29E-04	1.02E-04	2.31E-04
564370_4183830	564370	4183830	1.21E-04	1.03E-04	2.24E-04	potential residence	3.04E-09	7.35E-08	8.10E-08	9.00E-09	0.17	0.00	1.21E-04	1.03E-04	2.24E-04
564350_4183830	564350	4183830	1.17E-04	1.00E-04	2.18E-04	Daycare	2.95E-09	7.15E-08	7.87E-08	8.74E-09	0.16	0.00	1.17E-04	1.00E-04	2.18E-04
564330_4183830	564330	4183830	1.11E-04	1.01E-04	2.11E-04	Daycare	2.87E-09	6.95E-08	7.66E-08	8.50E-09	0.16	0.00	1.11E-04	1.01E-04	2.11E-04
564310_4183830	564310	4183830	1.09E-04	1.02E-04	2.10E-04	Daycare	2.85E-09	6.91E-08	7.62E-08	8.46E-09	0.16	0.00	1.09E-04	1.02E-04	2.10E-04
564430_4183810	564430	4183810	1.37E-04	1.11E-04	2.48E-04	potential residence	3.36E-09	8.15E-08	8.98E-08	9.97E-09	0.18	0.00	1.37E-04	1.11E-04	2.48E-04
564410_4183810	564410	4183810	1.30E-04	1.10E-04	2.39E-04	potential residence	3.25E-09	7.87E-08	8.67E-08	9.63E-09	0.18	0.00	1.30E-04	1.10E-04	2.39E-04
564390_4183810	564390	4183810	1.27E-04	1.09E-04	2.36E-04	potential residence	3.20E-09	7.76E-08	8.55E-08	9.49E-09	0.18	0.00	1.27E-04	1.09E-04	2.36E-04
564370_4183810	564370	4183810	1.20E-04	1.08E-04	2.28E-04	potential residence	3.10E-09	7.50E-08	8.26E-08	9.17E-09	0.17	0.00	1.20E-04	1.08E-04	2.28E-04
564350_4183810	564350	4183810	1.17E-04	1.09E-04	2.26E-04	potential residence	3.06E-09	7.42E-08	8.17E-08	9.08E-09	0.17	0.00	1.17E-04	1.09E-04	2.26E-04
564330_4183810	564330	4183810	1.10E-04	1.06E-04	2.16E-04	Daycare	2.93E-09	7.11E-08	7.83E-08	8.70E-09	0.16	0.00	1.10E-04	1.06E-04	2.16E-04
564390_4183790	564390	4183790	1.26E-04	1.16E-04	2.42E-04	potential residence	3.29E-09	7.96E-08	8.77E-08	9.74E-09	0.18	0.00	1.26E-04	1.16E-04	2.42E-04
564370_4183790	564370	4183790	1.19E-04	1.16E-04	2.35E-04	potential residence	3.19E-09	7.73E-08	8.52E-08	9.46E-09	0.18	0.00	1.19E-04	1.16E-04	2.35E-04
565230_4183390	565230	4183390	4.48E-04	2.32E-04	6.80E-04	Daycare	9.22E-09	2.23E-07	2.46E-07	2.73E-08	0.51	0.00	4.48E-04	2.32E-04	6.80E-04
565250_4183390	565250	4183390	4.46E-04	2.21E-04	6.67E-04	Daycare	9.04E-09	2.19E-07	2.41E-07	2.68E-08	0.50	0.00	4.46E-04	2.21E-04	6.67E-04
565230_4183370	565230	4183370	4.41E-04	2.18E-04	6.59E-04	Daycare	8.93E-09	2.16E-07	2.38E-07	2.65E-08	0.49	0.00	4.41E-04	2.18E-04	6.59E-04
565250_4183370	565250	4183370	4.34E-04	2.14E-04	6.48E-04	Daycare	8.79E-09	2.13E-07	2.35E-07	2.60E-08	0.48	0.00	4.34E-04	2.14E-04	6.48E-04

Diesel Particulate Matter concentration, C_{DPM} (ug/m^3)

Lookup	X (UTM)	Y (UTM	Annual O&M			Receptor Type
			Bldg A	Bldg C	Total	
565230_4183350	565230	4183350	4.49E-04	2.18E-04	6.67E-04	Daycare
565250_4183350	565250	4183350	4.35E-04	2.16E-04	6.50E-04	Daycare

Risk Calculation Part 2 / HI

$\sum R1 * C_{DPM}$					C_{DPM}/REL
3rd Trimester	0<2	2<16	2<16	Total	
9.05E-09	2.19E-07	2.42E-07	2.68E-08	0.50	0.00
8.82E-09	2.14E-07	2.35E-07	2.61E-08	0.48	0.00

PM2.5

Annual O&M		
Bldg A	Bldg C	Total
4.49E-04	2.18E-04	6.67E-04
4.35E-04	2.16E-04	6.50E-04

Health Risk Assessment: Cumulative HRA

MEIR Receptor - Cumulative Risk

MEIR - Mitigated

30 yr, ops	Risk	UTM X	UTM Y
Cancer Risk	5.28	564770.00	4183550.00
HI	0.00	564770.00	4183550.00
$PM_{2.5}$	0.01	564770.00	4183550.00

BAAQMD Nearby Stationary Sources (report pulled 8/20/2020)

FID	FACID	Name	Address	Type	UTM X	UTM Y	Cancer	Hazard	PM_25
1861	14068	S F Bay Area Rapid Transit District	101 8th Street	Generators	564620.92	4183546	7.41	0.01	0.01
3809	18628	Alameda County Public Works Agency	7th Strt Lk Mrrt	Generators	564973.08	4183549	6.71	0	0.02
422	3737	George V Arth & Son	110 10th St	Surface Coating	564884.17	4183659	0	0	0
5479	22033	Oakland Museum of California	1000 Oak Street	Surface Coating, Generator, Boilers	564797	4183547	0.56	0	0.34
6026	23040	Caliber Collision Center	149 11th St	Surface Coating	564707.22	4183768	0	0	0
1785	13929	Alameda County GSA	1106 Madison Street	Generators	564620.05	4183657	1.04	0	0
3159	17190	Alameda County GSA	1221 Oak Street	Generators	564794.38	4183880	0.74	0	0

Stationary Source Impacts at MEIR

FACID	Distance From MEIR (m)	Distance Multiplier	Cancer	Hazard	PM2.5
14068	149.1	0.3	2.46	0.00	0.00
18628	203.1	0.2	1.53	0.00	0.00
3737	157.7	0.3	0.00	0.00	0.00
22033	27.1	0.8	0.44	0.00	0.27
23040	227.3	0.2	0.00	0.00	0.00
13929	184.1	0.3	0.27	0.00	0.00
17190	331.0	0.1	0.07	0.00	0.00

BAAQMD Nearby Mobile Sources (report pulled 8/20/2020)

Mobile Source Impacts at MEIR

Source Type	Cancer	Hazard	PM2.5
Highway Sources	35.90	NA	0.57
Major Street Sources	2.17	NA	0.02
Rail Sources	7.74	NA	0.01

Total Cumulative Impact at MEIR (Project Site)

Source Type	Cancer	Hazard	PM2.5
Project	5.28	0.00	0.01
Stationary	0.78	0.00	0.27
Mobile	45.81	0.00	0.60
Total	51.9	0.00	0.87

APPENDIX D

Equitable Climate Action Plan Consistency Checklist

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CITY OF OAKLAND
Equitable Climate Action Plan Consistency Checklist

CITY OF OAKLAND

250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612-2031
Zoning Information: 510-238-3911
https://www.oaklandca.gov/topics/planning

The purpose of this Equitable Climate Action Plan Consistency Review Checklist is to determine, for purposes of compliance with the California Environmental Quality Act (CEQA), whether a development project complies with the City of Oakland Equitable Climate Action Plan (ECAP) and the City of Oakland's greenhouse gas (GHG) emissions reduction targets. CEQA Guidelines require the analysis of GHG emissions and potential climate change impacts from new development.

- If a development project completes this Checklist and can qualitatively demonstrate compliance with the Checklist items as part of the project's design, or alternatively, demonstrate to the City's satisfaction why the item is not applicable, then the project will be considered in compliance with the City's CEQA GHG Threshold of Significance.
- If a development project cannot meet all of the Checklist items, the project will alternatively need to demonstrate consistency with the ECAP by complying with the City of Oakland GHG Reduction Plan Condition of Approval.
- If the project cannot demonstrate consistency with the ECAP in either of those two ways, the City will consider the project to have a significant effect on the environment related to GHG emissions.

Application Submittal Requirements

1. The ECAP Consistency Checklist applies to all development projects needing a CEQA GHG emissions analysis, including a specific plan consistency analysis.
2. If required, the ECAP Consistency Review Checklist must be submitted concurrently with the City of Oakland Basic Application.

Application Information

Applicant's Name/Company: East Bay Asian Local Development Corporation (EBALDC) & Strada Investment Group

Property Address: 51 9th Street (Block 1), 107 8th Street (Block 2)

Assessor's Parcel Number: 51 9th Street (APN 1-169-1), 107 8th Street (APN 1-171-5)

Phone Number: 916-698-0587

E-mail: bfat@strada.com

Checklist Item (Check the appropriate box and provide explanation for your answer).	Yes	No	N/A
Transportation & Land Use			
1. Is the proposed project substantially consistent with the City's over-all goals for land use and urban form, and/or taking advantage of allowable density and/or floor area ratio (FAR) standards in the City's General Plan? (TLU1)	X		
Please explain how the proposed project is substantially consistent with the City's General Plan with respect to density and FAR standards, land use, and urban form. The project will provide a high-density mix of residential, commercial, and office uses, featuring active ground floor uses that are informed by the standards outlined in the Lake Merritt Station Area Plan. The project's design aims to turn this station area into a dynamic TOD destination that is linked to other neighborhoods and amenities through it's emphasis on generous open space, commercial activity, and connections to various transportation modes. All proposed buildings exceed minimum ground floor commercial facade transparency minimums. All proposed buildings meet maximum FAR requirements.			
2. For developments in "Transit Accessible Areas" as defined in the Planning Code, would the project provide: i) less than half the maximum allowable parking, ii) the minimum allowable parking, or iii) take advantage of available parking reductions? (TLU1)	X		
Please explain how the proposed project meets this action item. Building A has 105 parking stalls for 360 units which is less than half the 1.25 per unit max (225 stalls) allowed. Building D has 254 parking stalls for 500,832sf of office which is less than half the 300/sf max (1,670 stalls) allowed. The affordable housing building B (Block 1) has no parking. Affordable housing building D (Block 2) will have 48 spots for 100 residential units, which is less than half of the maximum allowable parking			
3. For projects including structured parking, would the structured parking be designed for future adaptation to other uses? (Examples include, but are not limited to: the use of speed ramps instead of sloped floors.). (TLU1)	X		
Please explain how the proposed project meets this action item. Parking in both market rate towers are built without sloped floors, and with speed ramps which will allow for potential future adaptation. The affordable housing building B (Block 1) has no parking. Affordable housing building D (Block 2) is planned to include parking stackers within the podium to allow for future adaptive uses.			
4. For projects that ***are*** subject to a Transportation Demand Management Program, would the project include transit passes for employees and/or residents? (TLU1)	X		
Please explain how the proposed project meets this action item. Per Section 17.116.105B - Transit Passes - LM Zone for new multifamily newer with more than 5DU will require the project to make permanently available a monthly transit benefit to each dwelling unit in an amount equal to either one-half the price of an Adult 31-Day AC Transit Pass or an AC Transit EasyPass. This benefit shall be placed on a Regional Transit Connection Clipper Card. A notice describing this transit benefit shall be permanently posted in a common area of the building such as a lobby or mailroom that is clearly visible to residents. The affordable housing buildings B (Block 1) & D (Block 2) will be providing transit passes to each household/unit in the project as part of funding from California HCD's Affordable Housing & Sustainable Communities (AHSC) program			

	Yes	No	N/A
5. For projects that are ***not*** subject to a Transportation Demand Management Program, would the project incorporate one or more of the optional Transportation Demand Management measures that reduce dependency on single-occupancy vehicles? (Examples include but are not limited to transit passes or subsidies to employees and/or residents; carpooling; vanpooling; or shuttle programs; on-site carshare program; guaranteed ride home programs) (TLU1 & TLU8)			X

Please explain how the proposed project meets this action item.

	Yes	No	N/A
6. Does the project comply with the Plug-In Electric Vehicle (PEV) Charging Infrastructure requirements (Chapter 15.04 of the Oakland Municipal Code), if applicable? (TLU2 & TLU-5)	XX		

Please explain how the proposed project meets this action item.

The Project will comply with the Plug-In Electric Vehicle (PEV) Charging infrastructure requirement by providing the appropriate # of parking spaces with PEV charging capacity.

	Yes	No	N/A
7. Would the project reduce or prevent the direct displacement of residents and essential businesses? (For residential projects, would the project comply with SB 330, if applicable? For projects that demolish an existing commercial space, would the project include comparable square footage of neighborhood serving commercial floor space.) (TLU3)			X

Please explain how the proposed project meets this action item.

Block 1 is currently a BART surface parking lot. Block 2 is the former MTC/ABAG offices (Public/Institutional land use designation per the Lake Merritt Station Area Plan), and is now owned by BART. No direct displacement of residents nor essential businesses will take place on either block.

8. Would the project prioritize sidewalk and curb space consistent with the City's adopted Bike and Pedestrian Plans? (The project should not prevent the City's Bike and Pedestrian Plans from being implemented. For example, do not install a garage entrance where a planned bike path would be unless otherwise infeasible due to Planning Code requirements, limited frontage or other constraints.) (TLU7)	**Yes**	**No**	**N/A**
	X		

Please explain how the proposed project meets this action item.

The project will prioritize sidewalk and curb space consistent with the Bike and Pedestrian Plan. Sidewalk design and curb space allocation is informed by the Lake Merritt BART Station Access Plan, which in turn was informed by the current Oakland Bike and Pedestrian Plan. The project is designed to accommodate protected and buffered bike lanes, including a two-way cycle track. Key pedestrian improvements will include sidewalks upgrades such as repaving/regrading throughout the sites, planting of street trees, additions of corner bulb-outs, and sidewalk widening in some areas.

Buildings

9. Does the project not create any new natural gas connections/hook-ups? (B1 & B2)	**Yes**	**No**	**N/A**
	X		

Please explain how the proposed project meets this action item.

The current PDP does not include any new natural gas connections/hook-ups.

10. Does the project comply with the City of Oakland Green Building Ordinance (Chapter 18.02 of the Oakland Municipal Code), if applicable? (B4)	**Yes**	**No**	**N/A**
	X		

Please explain how the proposed project meets this action item.

All four (4) buildings of this project will be pursuing Greenpoint Rating (Building A & B, Block 1; Building D, Block 2) and LEED Certification (Building C, Block 2) to meet and exceed the City of Oakland's Green Building Ordinance.

11. For retrofits of City-owned or City-controlled buildings: Would the project be all-electric, eliminate gas infrastructure from the building, and integrate energy storage wherever technically feasible and appropriate? (B5)	**Yes**	**No**	**N/A**
			X

Please explain how the proposed project meets this action item.

Material Consumption & Waste			
12. Would the project reduce demolition waste from construction and renovation and facilitate material reuse in compliance with the Construction Demolition Ordinance (Chapter 15.34 of the Oakland Municipal Code)? (MCW6)	**Yes**	**No**	**N/A**
	X		
Please explain how the proposed project meets this action item. The Project will comply with Construction Demolition Ordinance 15.34.			

City Leadership			
13. For City projects: Have opportunities to eliminate/minimize fossil fuel dependency been analyzed in project design and construction? (CL2)	**Yes**	**No**	**N/A**
			X
Please explain how the proposed project meets this action item.			

Adaptation			
14. For new projects in the Designated Very High Wildfire Severity Zone: Would the project incorporate wildfire safety requirements such creation of defensible space around the house, pruning, clearing and removal of vegetation, replacement of fire resistant plants, as required in the Vegetation Management Plan? (A4)	**Yes**	**No**	**N/A**
			X
Please explain how the proposed project meets this action item.			

Carbon Removal			
15. Would the project replace a greater number of trees than will be removed in compliance with the Tree Preservation Ordinance (Chapter 12.36 of the Oakland Municipal Code) and Planning Code if applicable and feasible given competing site constraints? (CR-2)	**Yes**	**No**	**N/A**
	X		
Please explain how the proposed project meets this action item. The Project removes 65 existing trees, all in poor health, and will plant (replace) more than 65 trees in compliance with the Tree Preservation Ordinance.			
16. Does the project comply with the Creek Protection, Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the Oakland Municipal Code), as applicable? (CR-3)	**Yes**	**No**	**N/A**
	X		
Please explain how the proposed project meets this action item. The project will have a storm water management plan in compliance with 13.16, as applicable.			

I understand that answering ***yes*** to all of these questions, means that the project ***is in compliance with*** the City's Energy and Climate Action Plan as adopted on to July 28, 2020 and requires that staff apply the Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist Condition of Approval as adopted by the Planning Commission on December 16, 2020 and all Checklist items must be incorporated into the project

I understand that answering ***no*** to any of these questions, means that the project ***is not in compliance*** with the City's Energy and Climate Action Plan as adopted on to July 28, 2020 and requires that staff apply the Greenhouse Gas (GHG) Reduction Plan Condition of Approval as adopted by the Planning Commission on December 16, 2020 which will require that the applicant prepare a quantitative GHG analysis and GHG Reduction Plan for staff's review and approval. The GHG Reduction Plan and all GHG Reduction measures shall be incorporated into the project and implemented during construction and after construction for the life of the project.

Name and Signature of Preparer | Feb-18-2021 Date

Green Point Rated Planning Scoresheets

ESA

GreenPointRATED
A PROGRAM OF BUILD IT GREEN

NEW HOME RATING SYSTEM, VERSION 8.2

MULTIFAMILY

Planning Scoresheet

The GreenPoint Rated checklist tracks green features incorporated into the home. GreenPoint Rated is administered by Build It Green, a non-profit whose mission is to promote healthy, energy and resource efficient buildings.
The minimum requirements of GreenPoint Rated are: verification of 50 or more points; Earn the following minimum points per category: Commuity (2) Energy (25), Indoor Air Quality/Health (6), Resources (6), and Water (6); and meet the prerequisites depending on State. For California: CALGreen Mandatory, E5.2 , H6.1, J5.1, J6, O1, O7. Outside California: ICC 700 Mandatory Measures, E5.2, H6.1, J5.1, O1, O7.

The criteria for the green building practices listed below are described in the GreenPoint Rated New Home Rating Manual v8.2. For more information please visit **www.builditgreen.org/greenpointrated**
Build It Green is not a code enforcement agency.

A home is only GreenPoint Rated if all features are verified by a Certified GreenPoint Rater and submitted through Build It Green.

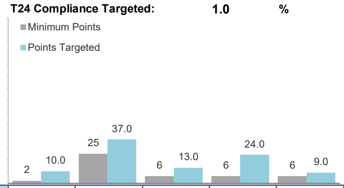
New Home Multifamily Version 8.2

Points Targeted: 93.0

Certification Level Targeted: Silver

Compliance Pathway Targeted: Option 2: All Electric Compliance

T24 Compliance Targeted: 1.0 %



	Lake Merritt BART Redevelopment Building A Measures	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	Notes
			Possible Points					
CALGreen								
Yes	CALGreen (REQUIRED)	4		1	1	1	1	
A. SITE								
No	**A1. Construction Footprint**	0				1		
	A2. Job Site Construction Waste Diversion							
Yes	A2.1 70% C&D Waste Diversion (Including Alternative Daily Cover)	2				2		includes demo
No	A2.2 Recycling Rates from Third-Party Verified Mixed-Use Waste Facility	0				1		
TBD	**A3. Recycled Content Base Material**					1		Class II aggregate qualifies
TBD	**A4. Heat Island Effect Reduction (Non-Roof)**			1				50% of impervious area SR .3 or SRI> 29% OR covered parking w/ SRI ≥29% (combine garage and hardscape)
TBD	**A5. Construction Environmental Quality Management Plan Including Flush-Out**				1			72 hrs or 3 day flush out
	A6. Stormwater Control: Prescriptive Path							
No	A6.1 Permeable Paving Material	0					1	BKF confirmed this is not possible
No	A6.2 Filtration and/or Bio-Retention Features	0					1	BKF confirmed this is not possible
No	A6.3 Non-Leaching Roofing Materials	0					1	
No	A6.4 Smart Stormwater Street Design	0	1					90% of hardscape water must flow through landscape
No	**A7. Stormwater Control: Performance Path**	0					3	criteria for qualification includes design storm
B. FOUNDATION								
TBD	**B1. Fly Ash and/or Slag in Concrete**					1		30% flyash/ slag for all structural concrete
No	**B2. Radon-Resistant Construction** (Required for EPA Radon Zone 1)	0			2			
No	**B3. Foundation Drainage System**	0				2		
No	**B4. Moisture Controlled Crawlspace**	0			1			
	B5. Structural Pest Controls							
Yes	B5.1 Termite Shields and Separated Exterior Wood-to-Concrete Connections	1				1		applies to only SF and MF low rise
TBD	B5.2 Plant Trunks, Bases, or Stems at Least 36 Inches from the Foundation					1		
C. LANDSCAPE								
5.86%	Enter the landscape area percentage. Points capped at 3 for less than 15%.							
Yes	**C1. Plants Grouped by Water Needs (Hydrozoning)**	1					1	Capped at 3 points for C1-7, C9-C11 is landscape area is under 15% of total site area
Yes	**C2. Three Inches of Mulch in Planting Beds**	1					1	
	C3. Resource Efficient Landscapes							
Yes	C3.1 No Invasive Species According to Cal-IPC	1				1		
Yes	C3.2 Plants Chosen and Located to Grow to Natural Size	0				1		
Yes	C3.3 Drought Tolerant, Native, Mediterranean Species, or Other Appropriate Species	0					3	
	C4. Minimal Turf in Landscape							
Yes	C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide	0					2	No Turf
≤10%	C4.2 Turf on a Small Percentage of Landscaped Area	0					2	
No	**C5. Trees to Moderate Building Temperature**	0		1	1		1	trees need to be drought tolerant
	C6. High-Efficiency Irrigation System							
Yes	C6.1 System Uses Only Low-Flow Drip, Bubblers or Sprinklers	0					2	non-turf areas ≤ 1.0 gpm, turf ≤ 1"/hr
No	**C7. One Inch of Compost in the Top Six to Twelve Inches of Soil**	0					2	
TBD	**C8. Rainwater Harvesting System**						3	
TBD	**C9. Recycled Wastewater Irrigation System**						1	
Yes	**C10. Submeter or Dedicated Meter for Landscape Irrigation**	0					2	
TBD	**C11. Landscape Meets Water Budget**						1	water budget now includes .5 Eto
	C12. Environmentally Preferable Materials for Site							
No	C12.1 Environmentally Preferable Materials for 70% of Non-Plant Landscape Elements and Fencing	0				1		
No	C12.2 Play Structures and Surfaces Have an Average Recycled Content ≥20%	0				1		
TBD	**C13. Reduced Light Pollution**		1					Dark sky light fixtures, no light tresspass
No	**C14. Large Stature Tree(s)**	0	1					large stature = ≥ 50'. Exisiting trees qualify. 1 tree/ 15,00

Lake Merritt BART Redevelopment Building A		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
No	**C15. Third Party Landscape Program Certification**	0					1	staff person needs Bay Friendly certification
No	**C16. Maintenance Contract with Certified Professional**	0					1	
No	**C17. Community Garden**	0	2					10 sq ft for 50% of units
D. STRUCTURAL FRAME AND BUILDING ENVELOPE								
	D1. Optimal Value Engineering							
No	D1.1 Joists, Rafters, and Studs at 24 Inches on Center	0		1		2		
No	D1.2 Non-Load Bearing Door and Window Headers Sized for Load	0				1		Will verify in field, structural should add header schedule or note to plans
No	D1.3 Advanced Framing Measures	0				2		
TBD	**D2. Construction Material Efficiencies**					1		
	D3. Engineered Lumber							
No	D3.1 Engineered Beams and Headers	0				1		
TBD	D3.2 OSB for Subfloor					0.5		
TBD	D3.3 OSB for Wall and Roof Sheathing					0.5		
No	**D4. Insulated Headers**	0		1				
	D5. FSC-Certified Wood							
No	D5.1 Dimensional Lumber, Studs, and Timber	0				6		
No	D5.2 Panel Products	0				3		
	D6. Solid Wall Systems							
No	D6.1 At Least 90% of Floors	0				1		
No	D6.2 At Least 90% of Exterior Walls	0		1		1		
No	D6.3 At Least 90% of Roofs	0		1		1		
No	**D7. Energy Heels on Roof Trusses**	0		1				Only for low-rise buildings 3 stories and under
No	**D8. Overhangs and Gutters**	0		1		1		Only for low-rise buildings 3 stories and under
	D9. Reduced Pollution Entering the Home from the Garage							
No	D9.1 Detached Garage	0			2			
Yes	D9.2 Mitigation Strategies for Attached Garage	1			1			
	D10. Structural Pest and Rot Controls							
Yes	D10.1 All Wood Located At Least 12 Inches Above the Soil	1				1		
Yes	D10.2 Wood Framing Treated With Borates or Factory-Impregnated, or Wall Materials Other Than Wood	1				1		Metal fraiming at 1st floor level qualifies
No	**D11. Moisture-Resistant Materials in Wet Areas (such as Kitchen, Bathrooms, Utility Rooms, and Basements)**	0			1	1		

Lake Merritt BART Redevelopment Building A		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
E. EXTERIOR								
No	**E1. Environmentally Preferable Decking**	0				1		
TBD	**E2. Flashing Installation Third-Party Verified**					2		W
No	**E3. Rain Screen Wall System**	0				2		
Yes	**E4. Durable and Non-Combustible Cladding Materials**	1				1		
	E5. Durable Roofing Materials							
Yes	E5.1 Durable and Fire Resistant Roofing Materials or Assembly	1				1		
Yes	E5.2 Roofing Warranty for Shingle Roofing	Y	R	R	R	R	R	10 yr manf wrnty + 3 yr sub + Class A
TBD	**E6. Vegetated Roof**		2	2				
F. INSULATION								
	F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content							
Yes	F1.1 Walls and Floors	0.5				0.5		JM or OC nonfaced batt meets criteria
Yes	F1.2 Ceilings	0.5				0.5		
	F2. Insulation that Meets the CDPH Standard Method—Residential for Low Emissions							
Yes	F2.1 Walls and Floors	0.5			0.5			
Yes	F2.2 Ceilings	0.5			0.5			
	F3. Insulation That Does Not Contain Fire Retardants							
Yes	F3.1 Cavity Walls and Floors	1			1			
Yes	F3.2 Ceilings	1			1			
TBD	F3.3 Interior and Exterior Insulation				1			
G. PLUMBING								
	G1. Efficient Distribution of Domestic Hot Water							
No	G1.1 Insulated Hot Water Pipes	0		1				branches included
No	G1.2 WaterSense Volume Limit for Hot Water Distribution	0					1	
No	G1.3 Increased Efficiency in Hot Water Distribution	0					2	
	G2. Install Water-Efficient Fixtures							
Yes	G2.1 WaterSense Showerheads ≤ 1.8 gpm with Matching Compensation Valve	2					2	
TBD	G2.1 WaterSense Bathroom Facuets ≤ 1.0 gpm						1	
1.28 gpf	G2.3 WaterSense Toilets with a Maximum Performance (MaP) Threshold of No Less Than 500 Grams ≤ 1.28 gpf OR ≤ 1.1 gpf	1					2	
No	G2.4 Urinals with Flush Rate of ≤ 0.1 gpf	0					1	
No	**G3. Pre-Plumbing for Graywater System**	0					1	
No	**G4. Operational Graywater System**	0					3	indoor and outdoor use
TBD	**G5. Thermostatic Shower Valve or Auto-Diversion Tub Spout**						1	installation of thermostatic shower valves or anto-diverting tubspout with TSV in all bathrooms
Yes	**G6. Submeter Water for Tenants**	2					2	hot and cold
H. HEATING, VENTILATION, AND AIR CONDITIONING								
	H1. Sealed Combustion Units							
Yes	H1.1 Sealed Combustion Furnace	1			1			Heatpumps qualify
Yes	H1.2 Sealed Combustion Water Heater	2			2			heat pump water heater, power vented, unit to outside of building all qualify
No	**H2. High Performing Zoned Hydronic Radiant Heating System**	0		1	1			
	H3. Effective Ductwork							
No	H3.1 Duct Mastic on Duct Joints and Seams	0		1				
No	H3.2 Pressure Balance the Ductwork System	0		1				
	H4. ENERGY STAR® Bathroom Fans							
No	H4.1 ENERGY STAR® Bathroom Fans Per HVI Standards	0			1			Testing required
	H5. Advanced Practices for Cooling							
No	H5.1 ENERGY STAR® Ceiling Fans in Living Areas and Bedrooms	0		1				
No	H5.2 Operable Windows and Skylights Located to Induce Cross Ventilation in At Least One Room in 80% of Units	0		1				
	H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality							
Yes	H6.1 Meet ASHRAE Standard 62.2-2016 Ventilation Residential Standards	Y	R	R	R	R	R	
No	H6.2 Advanced Ventilation Standards	0			2			HRV
TBD	H6.3 Outdoor Air is Filtered and Tempered				1			MERV 6 min required
	H7. Effective Range Design and Installation							
No	H7.1 Effective Range Hood Ducting and Design	0			1			
No	H7.2 Automatic Range Hood Control	0			1			
No	**H8. High Efficiency HVAC Filter (MERV 16+)**	0			1			
No	**H9. Advanced Refrigerants**	0			1			
I. RENEWABLE ENERGY								
	I1. Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)			25				
	I2. Net Zero Energy Home							
No	I2.1 Near Zero Energy Home	0		2				
No	I2.2 Low Carbon Home	0		4				
No	**I3. Energy Storage**	0		1				
TBD	**I4. Solar Hot Water Systems to Preheat Domestic Hot Water**			4				

Lake Merritt BART Redevelopment Building A		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
TBD	**I5. Photovoltaic System for Multifamily Projects**			8				
J. BUILDING PERFORMANCE AND TESTING								
No	**J1. Third-Party Verification of Quality of Insulation Installation**	0			1			
No	**J2. Supply and Return Air Flow Testing**	0		1	1			
No	**J3. Mechanical Ventilation Testing and Low Leakage**	0			1			
No	**J4. All Electric or Combustion Appliance Safety Testing**	0			1			
	J5. Building Energy Performance							
Option 2: All Electric Compliance	J5.1 Home Outperforms Title 24	27		25+				Option 1: Mixed Fuel - High Rise: Compliance margin is 10% over T24 or higher w/o PV credit OR 4% over T24 and 40% including PV and Process Credit. Low Rise: Minimum Total (EDR) margin ranges from 6-10 based on climate zone. Both high-rise and low-rise require pre-wiring requirements: Dryer - conductor rated for 40 amp, Range - conductor rated for 50 amp. PV and storage credit allowed. Option 2: All Electric Compliance - High-Rise: meet T24. Low Rise: Meet Efficiency (EDR) margin based on climate zone (0-5). PV and Storage credit allowed. Option 3: Annual Energy Use - Minimum 20% compliance based on annual energy use. PV credit not allowed
1.0%	J5.2 Non-Residential Spaces Outperform Title 24	1.0		15				One Energy Point for Every 1%
Yes	**J6. Title 24 Prepared and Signed by a CABEC Certified Energy Analyst**	1		1				
No	**J7. Participation in Utility Program with Third-Party Plan Review**	0		1				
No	**J8. ENERGY STAR® for Homes**	0		1				
No	**J9. EPA Indoor airPlus Certification**				2			
TBD	**J10. Blower Door Testing**				3			
No	**J11. Compartmentalization of Units**	0		1	1			
K. FINISHES								
	K1. Entryways Designed to Reduce Tracked-In Contaminants							
No	K1.1 Entryways to Individual Units	0			1			
TBD	K1.2 Entryways to Buildiings				1			6 ft in direction of travel
	K2. Low-VOC Interior Wall and Ceiling Paints							
Yes	K2.1 Zero-VOC Interior Wall and Ceiling Paints (< 5 gpl)	2			2			
No	**K3. Low-VOC Caulks and Adhesives**	0			1			
	K4. Environmentally Preferable Materials for Interior Finish							
No	K4.1 Cabinets	0				2		
TBD	K4.2 Interior Trim					2		
No	K4.3 Shelving	0				2		
No	K4.4 Doors	0				2		
No	K4.5 Countertops	0				1		
	K5. Formaldehyde Emissions in Interior Finish Exceed CARB							
No	K5.1 Doors	0			1			
No	K5.2 Cabinets and Countertops	0			2			
No	K5.3 Interior Trim and Shelving	0			2			
No	**K6. Products That Comply With the Health Product Declaration Open Standard**	0			2			
No	**K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion**	0			2			
No	**K8. Comprehensive Inclusion of Low Emitting Finishes**				1			
No	**K9. Durable Cabinets**	0				2		
No	**K10. At Least 25% of Interior Furniture Has Environmentally Preferable Attributes**	0				1		

	Lake Merritt BART Redevelopment Building A	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
L. FLOORING								
TBD	**L1. Environmentally Preferable Flooring**					3		
≥75%	**L2. Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential**	3			3			
No	**L3. Durable Flooring**	0				1		
No	**L4. Thermal Mass Flooring**	0		1				
M. APPLIANCES AND LIGHTING								
Yes	**M1. ENERGY STAR® Dishwasher**	1					1	
	M2. Efficient Clothes Washing and Drying							
TBD	M2.1. CEE-Rated Clothes Washer			1			2	
Yes	M2.2 ENERGY STAR® Dryer	1		1				
No	M2.3 Solar Dryer/ Laundry Lines	0		0.5				
<20 cubic feet	**M3. Size-Efficient ENERGY STAR® Refrigerator**	2		2				
	M4. Permanent Centers for Waste Reduction Strategies							
No	M4.1 Built-In Recycling Center	0				1		
No	M4.2 Built-In Composting Center	0				1		
	M5. Lighting Efficiency							
Yes	M5.1 High-Efficacy Lighting	2		2				
No	M5.2 Lighting System Designed to IESNA Footcandle Standards or Designed by Lighting Consultant	0		2				
TBD	**M6. Electric Vehicle Charging Stations and Infrastructure**			2				
No	**M7. Central Laundry**	0					1	
TBD	**M8. Gearless Elevator**			1				gearless or traction = ok ; geared or hydrolic = NO
N. COMMUNITY								
	N1. Smart Development							
Yes	N1.1 Infill Site	2	1			1		
No	N1.2 Designated Brownfield Site	0	1			1		
>35	N1.3 Conserve Resources by Increasing Density	4		2		2		
No	N1.4 Cluster Homes for Land Preservation	0	1			1		
	N1.5 Home Size Efficiency					10		
	Enter the area of the home, in square feet							
1	Enter the number of bedrooms							
	N2. Home(s)/Development Located Near Transit							
No	N2.1 Within 1 Mile of a Major Transit Stop	0	1					
Yes	N2.2. Within 1/2 mile of a Major Transit Stop	2	2					
	N3. Pedestrian and Bicycle Access							
	N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services	2	2					
10	Enter the number of Tier 1 services							
10	Enter the number of Tier 2 services							
TBD	N3.2 Connection to Pedestrian Pathways		1					
TBD	N3.3 Traffic Calming Strategies		2					
Yes	N3.4 Sidewalks Buffered from Roadways and 5-8 Feet Wide	1	1					
Yes	N3.5 Bicycle Storage for Residents	1	1					60 long term bike spaces; 15% of total occupants (2 ppl/
TBD	N3.6 Bicycle Storage for Non-Residents		1					15 short-term bike spaces
1 space per unit	N3.7 Reduced Parking Capacity	2	2					100 parking spaces total
	N4. Outdoor Gathering Places							
TBD	N4.1 Public or Semi-Public Outdoor Gathering Places for Residents		1					Need either 25 or 50 sq ft depending on if density is < 50 units/ ares or greater
TBD	N4.2 Public Outdoor Gathering Places with Direct Access to Tier 1 Community Services		1					
	N5. Social Interaction							
TBD	N5.1 Residence Entries with Views to Callers		1					double peep holes or sidelights qualify
Yes	N5.2 Entrances Visible from Street and/or Other Front Doors	1	1					
No	N5.3 Porches Oriented to Street and Public Space	0	1					
	N6. Passive Solar Design							
No	N6.1 Heating Load	0		2				
No	N6.2 Cooling Load	0		2				
	N7. Adaptable Building							
No	N7.1 Universal Design Principles in Units	0	1		1			
No	N7.2 Full-Function Independent Rental Unit	0	1					
	N8. Resiliency							
No	N8.1 Climate Impact Assessment	0	1		1	1		
No	N8.2 Strategies to Address Assessment Findings	0	1		1	1		
	N9. Social Equity							
No	N9.1 Diverse Workforce	0	1			1		
No	N9.2 Community Location	0	1		1			
	N10. Affordability							

Lake Merritt BART Redevelopment Building A

		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
No	N10.1 Dedicated Units for Households Making 80% of AMI or Less	0	2					
No	N10.2 Units with Multiple Bedrooms for Households Making 80% of AMI or Less	0	1					
No	N10.3 At Least 20% of Units at 120% AMI or Less are For Sale	0	1					
	N11. Mixed-Use Developments							
No	N11.1 Live/Work Units Include a Dedicated Commercial Entrance	0	1					
TBD	N11.2 At Least 2% of Development Floor Space Supports Mixed Use		1					
No	N11.3 Half of the Non-Residential Floor Space is Dedicated to Community Service	0	1					
O. OTHER								
Yes	**O1. GreenPoint Rated Checklist in Blueprints**	Y	R	R	R	R	R	
No	**O2. Pre-Construction Kickoff Meeting with Rater and Subcontractors**	0		0.5		1	0.5	
No	**O3. Orientation and Training to Occupants—Conduct Educational Walkthroughs**	0		0.5	0.5	0.5	0.5	
No	**O4. Builder's or Developer's Management Staff are Certified Green Building Professionals**	0		0.5	0.5	0.5	0.5	
	O5. Home System Monitors							
No	O5.1. Home Energy Monitoring Systems	0		1				
No	O5.2. Home Water System Monitors	0					1	
	O6. Green Building Education							
TBD	O6.1 Marketing Green Building		2					
TBD	O6.2 Green Building Signage			0.5			0.5	
Yes	**O7. Green Appraisal Addendum**	Y	R	R	R	R	R	
No	**O8. Detailed Durability Plan and Third-Party Verification of Plan Implementation**	0				1		LEED for Homes standard
No	**O9. Residents Are Offered Free or Discounted Transit Passes**	0	2					
No	**O10. Vandalism Deterrence Practices and Vandalism Management Plan**	0	1					
TBD	**O11. Smokefree Housing**				2			
No	**O12. Integrated Pest Management Plan**	0			1			
P. DESIGN CONSIDERATIONS								
	P1. Acoustics: Noise and Vibration Control		1		1			
	Enter the number of Tier 1 practices							higher standard than code
	Enter the number of Tier 2 practices							
	P2. Mixed-Use Design Strategies							
No	P2.1 Tenant Improvement Requirements for Build-Outs	0			1		1	
No	P2.2 Commercial Loading Area Separated for Residential Area	0			1			
No	P2.3 Separate Mechanical and Plumbing Systems	0			1			
	P3. Commissioning							
No	P3.1 Design Phase	0		1	1			
No	P3.2 Construction Phase	0		2	1			
No	P3.3 Post-Construction Phase	0		2	1			
No	**P4. Building Enclosure Testing**	0		1	1	1		
INNOVATIONS								
Yes	**Dual trash Chutes**	1				1		
No	**Enter Innovation 2 description here. Enter up to four points at right.**	0						
No	**Enter Innovation 3 description here. Enter up to four points at right.**	0						
No	**Enter Innovation 4 description here. Enter up to four points at right.**	0						
	Summary		Community	Energy	IAQ/Health	Resources	Water	
	Total Available Points in Specific Categories	406	47	136	73	92	58	
	Minimum Points Required in Specific Categories	50	2	25	6	6	6	
	Total Points Targeted	**93.0**	**10.0**	**37.0**	**13.0**	**24.0**	**9.0**	

NEW HOME RATING SYSTEM, VERSION 8.2

MULTIFAMILY

Planning Scoresheet

Points Targeted: 106.0

Certification Level Targeted: Silver

Compliance Pathway Targeted: Option 2: All Electric Compliance

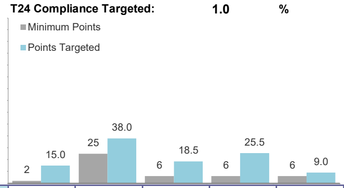
T24 Compliance Targeted: 1.0 %

The GreenPoint Rated checklist tracks green features incorporated into the home. GreenPoint Rated is administered by Build It Green, a non-profit whose mission is to promote healthy, energy and resource efficient buildings.
The minimum requirements of GreenPoint Rated are: verification of 50 or more points; Earn the following minimum points per category: Commuity (2) Energy (25), Indoor Air Quality/Health (6), Resources (6), and Water (6); and meet the prerequisites depending on State. For California: CALGreen Mandatory, E5.2 , H6.1, J5.1, J6, O1, O7. Outside California: ICC 700 Mandatory Measures, E5.2, H6.1, J5.1, O1, O7.

The criteria for the green building practices listed below are described in the GreenPoint Rated New Home Rating Manual v8.2. For more information please visit **www.builditgreen.org/greenpointrated**
Build It Green is not a code enforcement agency.

A home is only GreenPoint Rated if all features are verified by a Certified GreenPoint Rater and submitted through Build It Green.

New Home Multifamily Version 8.2



Lake Merritt BART Redevelopment Building B

Measures		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	Notes
			Possible Points					
CALGreen								
Yes	**CALGreen (REQUIRED)**	4		1	1	1	1	
A. SITE								
No	**A1. Construction Footprint**	0				1		
	A2. Job Site Construction Waste Diversion							
Yes	A2.1 70% C&D Waste Diversion (Including Alternative Daily Cover)	2				2		includes demo
No	A2.2 Recycling Rates from Third-Party Verified Mixed-Use Waste Facility	0				1		
TBD	**A3. Recycled Content Base Material**					1		Class II aggregate qualifies
TBD	**A4. Heat Island Effect Reduction (Non-Roof)**			1				Building B does not have any parking. 50% of impervious area SR .3 or SRI> 29% OR covered parking w/ SRI ≥29% (combine garage and hardscape)
TBD	**A5. Construction Environmental Quality Management Plan Including Flush-Out**				1			72 hrs or 3 day flush out
	A6. Stormwater Control: Prescriptive Path							
No	A6.1 Permeable Paving Material	0					1	Check with EWK. BART tunnel below. This may affect he
No	A6.2 Filtration and/or Bio-Retention Features	0					1	No landscaping. BKF confirmed this is not possible
No	A6.3 Non-Leaching Roofing Materials	0					1	
No	A6.4 Smart Stormwater Street Design	0	1					90% of hardscape water must flow through landscape
No	**A7. Stormwater Control: Performance Path**	0					3	criteria for qualification includes design storm
B. FOUNDATION								
TBD	**B1. Fly Ash and/or Slag in Concrete**					1		30% flyash/ slag for all structural concrete
No	**B2. Radon-Resistant Construction** (Required for EPA Radon Zone 1)	0			2			
No	**B3. Foundation Drainage System**	0				2		
No	**B4. Moisture Controlled Crawlspace**	0			1			
	B5. Structural Pest Controls							
Yes	B5.1 Termite Shields and Separated Exterior Wood-to-Concrete Connections	1				1		applies to only SF and MF low rise
TBD	B5.2 Plant Trunks, Bases, or Stems at Least 36 Inches from the Foundation					1		
C. LANDSCAPE								
14.35%	Enter the landscape area percentage. Points capped at 3 for less than 15%.							
Yes	**C1. Plants Grouped by Water Needs (Hydrozoning)**	1					1	Confirm landscaping scope with EWK. Capped at 3 points for C1-7, C9-C11 is landscape area is under 15% of total site area
Yes	**C2. Three Inches of Mulch in Planting Beds**	1					1	
	C3. Resource Efficient Landscapes							
Yes	C3.1 No Invasive Species According to Cal-IPC	1				1		
Yes	C3.2 Plants Chosen and Located to Grow to Natural Size	0				1		
Yes	C3.3 Drought Tolerant, Native, Mediterranean Species, or Other Appropriate Species	0					3	
	C4. Minimal Turf in Landscape							
Yes	C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide	0					2	No Turf
≤10%	C4.2 Turf on a Small Percentage of Landscaped Area	0					2	
No	**C5. Trees to Moderate Building Temperature**	0		1	1		1	trees need to be drought tolerant
	C6. High-Efficiency Irrigation System							
TBD	C6.1 System Uses Only Low-Flow Drip, Bubblers or Sprinklers						2	non-turf areas ≤ 1.0 gpm, turf ≤ 1"/hr
TBD	**C7. One Inch of Compost in the Top Six to Twelve Inches of Soil**						2	
TBD	**C8. Rainwater Harvesting System**						3	
TBD	**C9. Recycled Wastewater Irrigation System**						1	
TBD	**C10. Submeter or Dedicated Meter for Landscape Irrigation**						2	
TBD	**C11. Landscape Meets Water Budget**						1	water budget now includes .5 Eto
	C12. Environmentally Preferable Materials for Site							
No	C12.1 Environmentally Preferable Materials for 70% of Non-Plant Landscape Elements and Fencing	0				1		
No	C12.2 Play Structures and Surfaces Have an Average Recycled Content ≥20%	0				1		
TBD	**C13. Reduced Light Pollution**		1					Dark sky light fixtures, no light tresspass

Lake Merritt BART Redevelopment Building B		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
No	**C14. Large Stature Tree(s)**	0	1					large stature = ≥ 50'. Exisiting trees qualify. 1 tree/ 15,00
No	**C15. Third Party Landscape Program Certification**	0					1	staff person needs Bay Friendly certification
No	**C16. Maintenance Contract with Certified Professional**	0					1	
No	**C17. Community Garden**	0	2					10 sq ft for 50% of units
D. STRUCTURAL FRAME AND BUILDING ENVELOPE								
	D1. Optimal Value Engineering							
No	D1.1 Joists, Rafters, and Studs at 24 Inches on Center	0		1		2		
TBD	D1.2 Non-Load Bearing Door and Window Headers Sized for Load					1		Will verify in field, structural should add header schedule or note to plans
TBD	D1.3 Advanced Framing Measures					2		
TBD	**D2. Construction Material Efficiencies**					1		
	D3. Engineered Lumber							
No	D3.1 Engineered Beams and Headers	0				1		
TBD	D3.2 OSB for Subfloor					0.5		
No	D3.3 OSB for Wall and Roof Sheathing	0				0.5		Plywood will be installed in areas exposed to moisture.
No	**D4. Insulated Headers**	0		1				
	D5. FSC-Certified Wood							
No	D5.1 Dimensional Lumber, Studs, and Timber	0				6		
No	D5.2 Panel Products	0				3		
	D6. Solid Wall Systems							
No	D6.1 At Least 90% of Floors	0				1		
No	D6.2 At Least 90% of Exterior Walls	0		1		1		
No	D6.3 At Least 90% of Roofs	0		1		1		
	D9. Reduced Pollution Entering the Home from the Garage							
Yes	D9.1 Detached Garage	2			2			This project has no garage, which meets the intent of the
No	D9.2 Mitigation Strategies for Attached Garage	0			1			
	D10. Structural Pest and Rot Controls							
Yes	D10.1 All Wood Located At Least 12 Inches Above the Soil	1				1		
Yes	D10.2 Wood Framing Treated With Borates or Factory-Impregnated, or Wall Materials Other Than Wood	1				1		Metal fraiming at 1st floor level qualifies
No	**D11. Moisture-Resistant Materials in Wet Areas (such as Kitchen, Bathrooms, Utility Rooms, and Basements)**	0			1	1		

	Lake Merritt BART Redevelopment Building B	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
E. EXTERIOR								
TBD	**E1. Environmentally Preferable Decking**					1		
TBD	**E2. Flashing Installation Third-Party Verified**					2		W
No	**E3. Rain Screen Wall System**	0				2		
Yes	**E4. Durable and Non-Combustible Cladding Materials**	1				1		
	E5. Durable Roofing Materials							
Yes	E5.1 Durable and Fire Resistant Roofing Materials or Assembly	1				1		
Yes	E5.2 Roofing Warranty for Shingle Roofing	Y	R	R	R	R	R	10 yr manf wrnty + 3 yr sub + Class A
No	**E6. Vegetated Roof**	0	2	2				No plans for green roof - PYA
F. INSULATION								
	F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content							
Yes	F1.1 Walls and Floors	0.5				0.5		JM or OC nonfaced batt meets criteria
Yes	F1.2 Ceilings	0.5				0.5		
	F2. Insulation that Meets the CDPH Standard Method—Residential for Low Emissions							
Yes	F2.1 Walls and Floors	0.5			0.5			
Yes	F2.2 Ceilings	0.5			0.5			
	F3. Insulation That Does Not Contain Fire Retardants							
Yes	F3.1 Cavity Walls and Floors	1			1			
Yes	F3.2 Ceilings	1			1			
TBD	F3.3 Interior and Exterior Insulation				1			
G. PLUMBING								
	G1. Efficient Distribution of Domestic Hot Water							
No	G1.1 Insulated Hot Water Pipes	0		1				branches included
No	G1.2 WaterSense Volume Limit for Hot Water Distribution	0					1	
No	G1.3 Increased Efficiency in Hot Water Distribution	0					2	
	G2. Install Water-Efficient Fixtures							
Yes	G2.1 WaterSense Showerheads ≤ 1.8 gpm with Matching Compensation Valve	2					2	
TBD	G2.1 WaterSense Bathroom Facuets ≤ 1.0 gpm						1	
1.28 gpf	G2.3 WaterSense Toilets with a Maximum Performance (MaP) Threshold of No Less Than 500 Grams ≤ 1.28 gpf OR ≤ 1.1 gpf	1					2	
No	G2.4 Urinals with Flush Rate of ≤ 0.1 gpf	0					1	
No	**G3. Pre-Plumbing for Graywater System**	0					1	
No	**G4. Operational Graywater System**	0					3	indoor and outdoor use
TBD	**G5. Thermostatic Shower Valve or Auto-Diversion Tub Spout**						1	installation of thermostatic shower valves or anto-diverting tubspout with TSV in all bathrooms
TBD	**G6. Submeter Water for Tenants**						2	EBALDC decision. Not required for affordable housing. - PYA
H. HEATING, VENTILATION, AND AIR CONDITIONING								
	H1. Sealed Combustion Units							
Yes	H1.1 Sealed Combustion Furnace	1			1			Heatpumps qualify
Yes	H1.2 Sealed Combustion Water Heater	2			2			heat pump water heater, power vented, unit to outside of building all qualify
No	**H2. High Performing Zoned Hydronic Radiant Heating System**	0		1	1			
	H3. Effective Ductwork							
No	H3.1 Duct Mastic on Duct Joints and Seams	0		1				
No	H3.2 Pressure Balance the Ductwork System	0		1				
	H4. ENERGY STAR® Bathroom Fans							
No	H4.1 ENERGY STAR® Bathroom Fans Per HVI Standards	0			1			Testing required
	H5. Advanced Practices for Cooling							
No	H5.1 ENERGY STAR® Ceiling Fans in Living Areas and Bedrooms	0		1				
No	H5.2 Operable Windows and Skylights Located to Induce Cross Ventilation in At Least One Room in 80% of Units	0		1				
	H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality							
Yes	H6.1 Meet ASHRAE Standard 62.2-2016 Ventilation Residential Standards	Y	R	R	R	R	R	
No	H6.2 Advanced Ventilation Standards	0			2			HRV
TBD	H6.3 Outdoor Air is Filtered and Tempered				1			MERV 6 min required
	H7. Effective Range Design and Installation							
No	H7.1 Effective Range Hood Ducting and Design	0			1			
No	H7.2 Automatic Range Hood Control	0			1			
No	**H8. High Efficiency HVAC Filter (MERV 16+)**	0			1			
No	**H9. Advanced Refrigerants**	0			1			
I. RENEWABLE ENERGY								
	I1. Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)			25				This building will have solar - PYA
	I2. Net Zero Energy Home							
No	I2.1 Near Zero Energy Home	0		2				
No	I2.2 Low Carbon Home	0		4				
No	**I3. Energy Storage**	0		1				
No	**I4. Solar Hot Water Systems to Preheat Domestic Hot Water**	0		4				Unlikely to include SHW system - PYA

Lake Merritt BART Redevelopment Building B		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
TBD	**I5. Photovoltaic System for Multifamily Projects**			8				This building will have solar - PYA
J. BUILDING PERFORMANCE AND TESTING								
No	**J1. Third-Party Verification of Quality of Insulation Installation**	0			1			
No	**J2. Supply and Return Air Flow Testing**	0		1	1			
No	**J3. Mechanical Ventilation Testing and Low Leakage**	0			1			
No	**J4. All Electric or Combustion Appliance Safety Testing**	0			1			
	J5. Building Energy Performance							
Option 2: All Electric Compliance	J5.1 Home Outperforms Title 24	27		25+				Option 1: Mixed Fuel - High Rise: Compliance margin is 10% over T24 or higher w/o PV credit OR 4% over T24 and 40% including PV and Process Credit. Low Rise: Minimum Total (EDR) margin ranges from 6-10 based on climate zone. Both high-rise and low-rise require pre-wiring requirements: Dryer - conductor rated for 40 amp, Range - conductor rated for 50 amp. PV and storage credit allowed. Option 2: All Electric Compliance - High-Rise: meet T24. Low Rise: Meet Efficiency (EDR) margin based on climate zone (0-5). PV and Storage credit allowed. Option 3: Annual Energy Use - Minimum 20% compliance based on annual energy use. PV credit not allowed
1.0%	J5.2 Non-Residential Spaces Outperform Title 24	1.0		15				One Energy Point for Every 1%
Yes	**J6. Title 24 Prepared and Signed by a CABEC Certified Energy Analyst**	1		1				
No	**J7. Participation in Utility Program with Third-Party Plan Review**	0		1				
No	**J8. ENERGY STAR® for Homes**	0		1				
No	**J9. EPA Indoor airPlus Certification**				2			
TBD	**J10. Blower Door Testing**				3			
No	**J11. Compartmentalization of Units**	0		1	1			
K. FINISHES								
	K1. Entryways Designed to Reduce Tracked-In Contaminants							
No	K1.1 Entryways to Individual Units	0			1			
TBD	K1.2 Entryways to Buildiings				1			6 ft in direction of travel
	K2. Low-VOC Interior Wall and Ceiling Paints							
Yes	K2.1 Zero-VOC Interior Wall and Ceiling Paints (< 5 gpl)	2			2			
No	**K3. Low-VOC Caulks and Adhesives**	0			1			
	K4. Environmentally Preferable Materials for Interior Finish							
No	K4.1 Cabinets	0				2		
TBD	K4.2 Interior Trim					2		
No	K4.3 Shelving	0				2		
No	K4.4 Doors	0				2		
No	K4.5 Countertops	0				1		
	K5. Formaldehyde Emissions in Interior Finish Exceed CARB							
No	K5.1 Doors	0			1			
No	K5.2 Cabinets and Countertops	0			2			
No	K5.3 Interior Trim and Shelving	0			2			
No	**K6. Products That Comply With the Health Product Declaration Open Standard**	0			2			
No	**K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion**	0			2			
No	**K8. Comprehensive Inclusion of Low Emitting Finishes**				1			
No	**K9. Durable Cabinets**	0				2		
No	**K10. At Least 25% of Interior Furniture Has Environmentally Preferable Attributes**	0				1		

	Lake Merritt BART Redevelopment Building B	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
L. FLOORING								
TBD	**L1. Environmentally Preferable Flooring**					3		
≥75%	**L2. Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential**	3			3			
No	**L3. Durable Flooring**	0				1		
No	**L4. Thermal Mass Flooring**	0		1				
M. APPLIANCES AND LIGHTING								
Yes	**M1. ENERGY STAR® Dishwasher**	1					1	
	M2. Efficient Clothes Washing and Drying							
TBD	M2.1. CEE-Rated Clothes Washer			1			2	
Yes	M2.2 ENERGY STAR® Dryer	1		1				
No	M2.3 Solar Dryer/ Laundry Lines	0		0.5				
<20 cubic feet	**M3. Size-Efficient ENERGY STAR® Refrigerator**	2		2				Mostly likel achieve - PYA
	M4. Permanent Centers for Waste Reduction Strategies							
No	M4.1 Built-In Recycling Center	0				1		
No	M4.2 Built-In Composting Center	0				1		
	M5. Lighting Efficiency							
Yes	M5.1 High-Efficacy Lighting	2		2				
No	M5.2 Lighting System Designed to IESNA Footcandle Standards or Designed by Lighting Consultant	0		2				
No	**M6. Electric Vehicle Charging Stations and Infrastructure**	0		2				No parking provided - PYA
Yes	**M7. Central Laundry**	1					1	Common lanudry room in bldg - PYA
TBD	**M8. Gearless Elevator**			1				gearless or traction = ok ; geared or hydrolic = NO
N. COMMUNITY								
	N1. Smart Development							
Yes	N1.1 Infill Site	2	1			1		
No	N1.2 Designated Brownfield Site	0	1			1		
>35	N1.3 Conserve Resources by Increasing Density	4		2		2		
No	N1.4 Cluster Homes for Land Preservation	0	1			1		
	N1.5 Home Size Efficiency					10		
	Enter the area of the home, in square feet							
1	Enter the number of bedrooms							
	N2. Home(s)/Development Located Near Transit							
No	N2.1 Within 1 Mile of a Major Transit Stop	0	1					
Yes	N2.2. Within 1/2 mile of a Major Transit Stop	2	2					
	N3. Pedestrian and Bicycle Access							
	N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services	2	2					
10	Enter the number of Tier 1 services							
10	Enter the number of Tier 2 services							
TBD	N3.2 Connection to Pedestrian Pathways		1					
TBD	N3.3 Traffic Calming Strategies		2					
Yes	N3.4 Sidewalks Buffered from Roadways and 5-8 Feet Wide	1	1					
TBD	N3.5 Bicycle Storage for Residents		1					60 long term bike spaces; 15% of total occupants (2 ppl/
TBD	N3.6 Bicycle Storage for Non-Residents		1					15 short-term bike spaces
1 space per unit	N3.7 Reduced Parking Capacity	2	2					No parking provided- meets the intent of the credit.
	N4. Outdoor Gathering Places							
Yes	N4.1 Public or Semi-Public Outdoor Gathering Places for Residents	1	1					Yes- PYA. Need either 25 or 50 sq ft depending on if density is < 50 units/ ares or greater
TBD	N4.2 Public Outdoor Gathering Places with Direct Access to Tier 1 Community Services		1					
	N5. Social Interaction							
TBD	N5.1 Residence Entries with Views to Callers		1					double peep holes or sidelights qualify
Yes	N5.2 Entrances Visible from Street and/or Other Front Doors	1	1					
No	N5.3 Porches Oriented to Street and Public Space	0	1					
	N6. Passive Solar Design							
No	N6.1 Heating Load	0		2				
No	N6.2 Cooling Load	0		2				
	N7. Adaptable Building							
Yes	N7.1 Universal Design Principles in Units	2	1		1			EBALDC to consider.
No	N7.2 Full-Function Independent Rental Unit	0	1					
	N8. Resiliency							
No	N8.1 Climate Impact Assessment	0	1		1	1		
No	N8.2 Strategies to Address Assessment Findings	0	1		1	1		
	N9. Social Equity							
No	N9.1 Diverse Workforce	0	1			1		
No	N9.2 Community Location	0	1		1			
	N10. Affordability							

Lake Merritt BART Redevelopment Building B

		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
≥50%	N10.1 Dedicated Units for Households Making 80% of AMI or Less	2	2					Yes, EBALDC to confim units serve 60% AMI and below
No	N10.2 Units with Multiple Bedrooms for Households Making 80% of AMI or Less	0	1					
No	N10.3 At Least 20% of Units at 120% AMI or Less are For Sale	0	1					
	N11. Mixed-Use Developments							
No	N11.1 Live/Work Units Include a Dedicated Commercial Entrance	0	1					
TBD	N11.2 At Least 2% of Development Floor Space Supports Mixed Use		1					
No	N11.3 Half of the Non-Residential Floor Space is Dedicated to Community Service	0	1					
O. OTHER								
Yes	**O1. GreenPoint Rated Checklist in Blueprints**	Y	R	R	R	R	R	
Yes	**O2. Pre-Construction Kickoff Meeting with Rater and Subcontractors**	2		0.5		1	0.5	Yes - PYA
Yes	**O3. Orientation and Training to Occupants—Conduct Educational Walkthroughs**	2		0.5	0.5	0.5	0.5	Yes - PYA
No	**O4. Builder's or Developer's Management Staff are Certified Green Building Professionals**	0		0.5	0.5	0.5	0.5	
	O5. Home System Monitors							
No	O5.1. Home Energy Monitoring Systems	0		1				
No	O5.2. Home Water System Monitors	0					1	
	O6. Green Building Education							
TBD	O6.1 Marketing Green Building		2					
TBD	O6.2 Green Building Signage			0.5			0.5	
Yes	**O7. Green Appraisal Addendum**	Y	R	R	R	R	R	
No	**O8. Detailed Durability Plan and Third-Party Verification of Plan Implementation**	0				1		LEED for Homes standard
Yes	**O9. Residents Are Offered Free or Discounted Transit Passes**	2	2					Yes? EBALDC to confirm as part of part Green Trips pro
No	**O10. Vandalism Deterrence Practices and Vandalism Management Plan**	0	1					
Yes	**O11. Smokefree Housing**	2			2			Yes - PYA
No	**O12. Integrated Pest Management Plan**	0			1			
P. DESIGN CONSIDERATIONS								
	P1. Acoustics: Noise and Vibration Control		1		1			
	Enter the number of Tier 1 practices							higher standard than code
	Enter the number of Tier 2 practices							
	P2. Mixed-Use Design Strategies							
No	P2.1 Tenant Improvement Requirements for Build-Outs	0			1		1	
Yes	P2.2 Commercial Loading Area Separated for Residential Area	1			1			PYA - Yes
TBD	P2.3 Separate Mechanical and Plumbing Systems				1			PYA - TBD
	P3. Commissioning							
No	P3.1 Design Phase	0		1	1			
No	P3.2 Construction Phase	0		2	1			
No	P3.3 Post-Construction Phase	0		2	1			
No	**P4. Building Enclosure Testing**	0		1	1	1		
INNOVATIONS								
Yes	**Dual Trash chutes**	1				1		
No	**Enter Innovation 2 description here. Enter up to four points at right.**	0						
No	**Enter Innovation 3 description here. Enter up to four points at right.**	0						
No	**Enter Innovation 4 description here. Enter up to four points at right.**	0						
	Summary		Community	Energy	IAQ/Health	Resources	Water	
	Total Available Points in Specific Categories	406	47	136	73	92	58	
	Minimum Points Required in Specific Categories	50	2	25	6	6	6	
	Total Points Targeted	**106.0**	**15.0**	**38.0**	**18.5**	**25.5**	**9.0**	

LEED v4.1 for BD+C: New Construction
Project Checklist

Project Name: Lake Merrit Building C

Y	?	N			
0	0	1	Credit	Integrative Process	1

Y	?	N		Location and Transportation	16
9	2	5		**Location and Transportation**	**16**
			Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
	1	1	Credit	High Priority Site	2
5			Credit	Surrounding Density and Diverse Uses	5
2	1	2	Credit	Access to Quality Transit	5
		1	Credit	Bicycle Facilities	1
		1	Credit	Reduced Parking Footprint	1
1			Credit	Electric Vehicles	1

Y	?	N		Sustainable Sites	10
2	3	5		**Sustainable Sites**	**10**
Y			Prereq	Construction Activity Pollution Prevention	Required
		1	Credit	Site Assessment	1
		2	Credit	Protect or Restore Habitat	2
	1		Credit	Open Space	1
	1	2	Credit	Rainwater Management	3
1	1		Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction LEED Recognition for CAL Projects - 1 point, Option 1	1

Y	?	N		Water Efficiency	11
6	0	5		**Water Efficiency**	**11**
Y			Prereq	Outdoor Water Use Reduction - LEED Recognition for CAL	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering / data sharing	Required
1		1	Credit	Outdoor Water Use Reduction LEED Recognition for CAL Projects - 1 point, Option 2	2
4		2	Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

Y	?	N		Energy and Atmosphere	33
15	12	6		**Energy and Atmosphere**	**33**
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering - data	Required
Y			Prereq	Fundamental Refrigerant Management	Required
3		3	Credit	Enhanced Commissioning - Opt 1 / Path 1	6
10	8		Credit	Optimize Energy Performance	18
	1		Credit	Advanced Energy Metering	1
		2	Credit	Grid Harmonization	2
2	3		Credit	Renewable Energy	5
		1	Credit	Enhanced Refrigerant Management	1

Y	?	N		Materials and Resources	13
3	1	9		**Materials and Resources**	**13**
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
		5	Credit	Building Life-Cycle Impact Reduction	5
1		1	Credit	Building Product Disclosure and Optimization - EPDs	2
		2	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		1	Credit	Building Product Disclosure and Optimization - Material Ingredients	2
1	1		Credit	Construction and Demolition Waste Management - Recognition CAL Projects - 1 point / Option 1	2

Y	?	N		Indoor Environmental Quality	16
6	2	8		**Indoor Environmental Quality**	**16**
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
1		1	Credit	Enhanced Indoor Air Quality Strategies	2
3			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
		2	Credit	Indoor Air Quality Assessment	2
	1		Credit	Thermal Comfort	1
1	1		Credit	Interior Lighting	2
		3	Credit	Daylight	3
		1	Credit	Quality Views	1
		1	Credit	Acoustic Performance	1

Y	?	N		Innovation	6
6	0	0		**Innovation**	**6**
5			Credit	Safety First_ Re-Enter Your Workspace Community Contaminant Prevention - airborne release Safety First: Cleaning and Disinfecting Your Space Purchasing Lamps Occupant comfort survey	5
1			Credit	LEED Accredited Professional - LEED BD+C	1

Y	?	N		Regional Priority	4
3	0	1		**Regional Priority**	**4**
1			Credit	Regional Priority: Energy Performance, Threshold 10 points	1
		1	Credit	Regional Priority: Access to Quality Transit, Threshold 5 points	1
1			Credit	Regional Priority: Indoor water Use reduction, Threshold 4 points or Reduced Park	1
1			Credit	Regional Priority: Renewable Energy, Threshold 2 points	1

Y	?	N			
50	20	40	**TOTALS**	Possible Points:	**110**

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

GreenPointRATED
A PROGRAM OF BUILD IT GREEN

NEW HOME RATING SYSTEM, VERSION 8.2

MULTIFAMILY

Planning Scoresheet

The GreenPoint Rated checklist tracks green features incorporated into the home. GreenPoint Rated is administered by Build It Green, a non-profit whose mission is to promote healthy, energy and resource efficient buildings.
The minimum requirements of GreenPoint Rated are: verification of 50 or more points; Earn the following minimum points per category: Commuity (2) Energy (25), Indoor Air Quality/Health (6), Resources (6), and Water (6); and meet the prerequisites depending on State. For California: CALGreen Mandatory, E5.2 , H6.1, J5.1, J6, O1, O7. Outside California: ICC 700 Mandatory Measures, E5.2, H6.1, J5.1, O1, O7.

The criteria for the green building practices listed below are described in the GreenPoint Rated New Home Rating Manual v8.2. For more information please visit **www.builditgreen.org/greenpointrated**
Build It Green is not a code enforcement agency.

A home is only GreenPoint Rated if all features are verified by a Certified GreenPoint Rater and submitted through Build It Green.

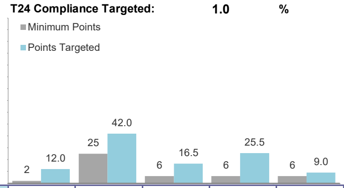
New Home Multifamily Version 8.2

Points Targeted: 105.0

Certification Level Targeted: Silver

Compliance Pathway Targeted: Option 2: All Electric Compliance

T24 Compliance Targeted: 1.0 %



Lake Merritt BART Redevelopment Building D

	Measures	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	Notes
			Possible Points					
CALGreen								
Yes	CALGreen (REQUIRED)	4		1	1	1	1	
A. SITE								
No	**A1. Construction Footprint**	0				1		
	A2. Job Site Construction Waste Diversion							
Yes	A2.1 70% C&D Waste Diversion (Including Alternative Daily Cover)	2				2		includes demo
No	A2.2 Recycling Rates from Third-Party Verified Mixed-Use Waste Facility	0				1		
TBD	**A3. Recycled Content Base Material**					1		Class II aggregate qualifies
TBD	**A4. Heat Island Effect Reduction (Non-Roof)**			1				50% of impervious area SR .3 or SRI> 29% OR covered parking w/ SRI ≥29% (combine garage and hardscape)
No	**A5. Construction Environmental Quality Management Plan Including Flush-Out**	0			1			72 hrs or 3 day flush out
	A6. Stormwater Control: Prescriptive Path							
TBD	A6.1 Permeable Paving Material						1	BKF confirmed this is not possible; 25% of hardscape
TBD	A6.2 Filtration and/or Bio-Retention Features						1	BKF confirmed this is not possible
No	A6.3 Non-Leaching Roofing Materials	0					1	
No	A6.4 Smart Stormwater Street Design	0	1					90% of hardscape water must flow through landscape
No	**A7. Stormwater Control: Performance Path**	0					3	criteria for qualification includes design storm
B. FOUNDATION								
TBD	**B1. Fly Ash and/or Slag in Concrete**					1		30% flyash/ slag for all structural concrete
No	**B2. Radon-Resistant Construction** (Required for EPA Radon Zone 1)	0			2			
No	**B3. Foundation Drainage System**	0				2		
No	**B4. Moisture Controlled Crawlspace**	0			1			
	B5. Structural Pest Controls							
Yes	B5.1 Termite Shields and Separated Exterior Wood-to-Concrete Connections	1				1		applies to only SF and MF low rise
No	B5.2 Plant Trunks, Bases, or Stems at Least 36 Inches from the Foundation	0				1		
C. LANDSCAPE								
8.06%	Enter the landscape area percentage. Points capped at 3 for less than 15%.							
Yes	**C1. Plants Grouped by Water Needs (Hydrozoning)**	1					1	EWK to confirm landscaping measures - PYA. Capped at 3 points for C1-7, C9-C11 is landscape area is under 15% of total site area
Yes	**C2. Three Inches of Mulch in Planting Beds**	1					1	
	C3. Resource Efficient Landscapes							
Yes	C3.1 No Invasive Species According to Cal-IPC	1				1		
Yes	C3.2 Plants Chosen and Located to Grow to Natural Size	0				1		
Yes	C3.3 Drought Tolerant, Native, Mediterranean Species, or Other Appropriate Species	0					3	
	C4. Minimal Turf in Landscape							
Yes	C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide	0					2	No Turf
≤10%	C4.2 Turf on a Small Percentage of Landscaped Area	0					2	
No	**C5. Trees to Moderate Building Temperature**	0		1	1		1	trees need to be drought tolerant
	C6. High-Efficiency Irrigation System							
Yes	C6.1 System Uses Only Low-Flow Drip, Bubblers or Sprinklers	0					2	non-turf areas ≤ 1.0 gpm, turf ≤ 1"/hr
No	**C7. One Inch of Compost in the Top Six to Twelve Inches of Soil**	0					2	
TBD	**C8. Rainwater Harvesting System**						3	
TBD	**C9. Recycled Wastewater Irrigation System**						1	
Yes	**C10. Submeter or Dedicated Meter for Landscape Irrigation**	0					2	
TBD	**C11. Landscape Meets Water Budget**						1	water budget now includes .5 Eto
	C12. Environmentally Preferable Materials for Site							
No	C12.1 Environmentally Preferable Materials for 70% of Non-Plant Landscape Elements and Fencing	0				1		
No	C12.2 Play Structures and Surfaces Have an Average Recycled Content ≥20%	0				1		
TBD	**C13. Reduced Light Pollution**		1					Dark sky light fixtures, no light tresspass
No	**C14. Large Stature Tree(s)**	0	1					large stature = ≥ 50'. Exisiting trees qualify. 1 tree/ 15,00

	Lake Merritt BART Redevelopment Building D	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
No	**C15. Third Party Landscape Program Certification**	0					1	staff person needs Bay Friendly certification
No	**C16. Maintenance Contract with Certified Professional**	0					1	
No	**C17. Community Garden**	0	2					10 sq ft for 50% of units
D. STRUCTURAL FRAME AND BUILDING ENVELOPE								
	D1. Optimal Value Engineering							
No	D1.1 Joists, Rafters, and Studs at 24 Inches on Center	0		1		2		
No	D1.2 Non-Load Bearing Door and Window Headers Sized for Load	0				1		Will verify in field, structural should add header schedule or note to plans
No	D1.3 Advanced Framing Measures	0				2		
TBD	**D2. Construction Material Efficiencies**					1		
	D3. Engineered Lumber							
No	D3.1 Engineered Beams and Headers	0				1		
TBD	D3.2 OSB for Subfloor					0.5		
No	D3.3 OSB for Wall and Roof Sheathing	0				0.5		Plywood for areas exposed to moisture
No	**D4. Insulated Headers**	0		1				
	D5. FSC-Certified Wood							
No	D5.1 Dimensional Lumber, Studs, and Timber	0				6		
No	D5.2 Panel Products	0				3		
	D6. Solid Wall Systems							
No	D6.1 At Least 90% of Floors	0				1		
No	D6.2 At Least 90% of Exterior Walls	0		1		1		
No	D6.3 At Least 90% of Roofs	0		1		1		
No	**D7. Energy Heels on Roof Trusses**	0		1				Only for low-rise buildings 3 stories and under
No	**D8. Overhangs and Gutters**	0		1		1		Only for low-rise buildings 3 stories and under
	D9. Reduced Pollution Entering the Home from the Garage							
No	D9.1 Detached Garage	0			2			
Yes	D9.2 Mitigation Strategies for Attached Garage	1			1			
	D10. Structural Pest and Rot Controls							
Yes	D10.1 All Wood Located At Least 12 Inches Above the Soil	1				1		
Yes	D10.2 Wood Framing Treated With Borates or Factory-Impregnated, or Wall Materials Other Than Wood	1				1		Metal fraiming at 1st floor level qualifies
No	**D11. Moisture-Resistant Materials in Wet Areas (such as Kitchen, Bathrooms, Utility Rooms, and Basements)**	0			1	1		

	Lake Merritt BART Redevelopment Building D	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
E. EXTERIOR								
No	**E1. Environmentally Preferable Decking**	0				1		
TBD	**E2. Flashing Installation Third-Party Verified**					2		W
No	**E3. Rain Screen Wall System**	0				2		
Yes	**E4. Durable and Non-Combustible Cladding Materials**	1				1		
	E5. Durable Roofing Materials							
Yes	E5.1 Durable and Fire Resistant Roofing Materials or Assembly	1				1		
Yes	E5.2 Roofing Warranty for Shingle Roofing	Y	R	R	R	R	R	10 yr manf wrnty + 3 yr sub + Class A
No	**E6. Vegetated Roof**	0	2	2				no plans for green roof - PYA
F. INSULATION								
	F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content							
Yes	F1.1 Walls and Floors	0.5				0.5		JM or OC nonfaced batt meets criteria
Yes	F1.2 Ceilings	0.5				0.5		
	F2. Insulation that Meets the CDPH Standard Method—Residential for Low Emissions							
Yes	F2.1 Walls and Floors	0.5			0.5			
Yes	F2.2 Ceilings	0.5			0.5			
	F3. Insulation That Does Not Contain Fire Retardants							
Yes	F3.1 Cavity Walls and Floors	1			1			
Yes	F3.2 Ceilings	1			1			
TBD	F3.3 Interior and Exterior Insulation				1			
G. PLUMBING								
	G1. Efficient Distribution of Domestic Hot Water							
No	G1.1 Insulated Hot Water Pipes	0		1				branches included
No	G1.2 WaterSense Volume Limit for Hot Water Distribution	0					1	
No	G1.3 Increased Efficiency in Hot Water Distribution	0					2	
	G2. Install Water-Efficient Fixtures							
Yes	G2.1 WaterSense Showerheads ≤ 1.8 gpm with Matching Compensation Valve	2					2	
No	G2.1 WaterSense Bathroom Facuets ≤ 1.0 gpm	0					1	
1.28 gpf	G2.3 WaterSense Toilets with a Maximum Performance (MaP) Threshold of No Less Than 500 Grams ≤ 1.28 gpf OR ≤ 1.1 gpf	1					2	
No	G2.4 Urinals with Flush Rate of ≤ 0.1 gpf	0					1	
No	**G3. Pre-Plumbing for Graywater System**	0					1	
No	**G4. Operational Graywater System**	0					3	indoor and outdoor use
TBD	**G5. Thermostatic Shower Valve or Auto-Diversion Tub Spout**						1	installation of thermostatic shower valves or anto-diverting tubspout with TSV in all bathrooms
TBD	**G6. Submeter Water for Tenants**						2	EBALDC decision. Not req for affordable housing - PYA
H. HEATING, VENTILATION, AND AIR CONDITIONING								
	H1. Sealed Combustion Units							
Yes	H1.1 Sealed Combustion Furnace	1			1			Heatpumps qualify
Yes	H1.2 Sealed Combustion Water Heater	2			2			heat pump water heater, power vented, unit to outside of building all qualify
No	**H2. High Performing Zoned Hydronic Radiant Heating System**	0		1	1			
	H3. Effective Ductwork							
No	H3.1 Duct Mastic on Duct Joints and Seams	0		1				
No	H3.2 Pressure Balance the Ductwork System	0		1				
	H4. ENERGY STAR® Bathroom Fans							
No	H4.1 ENERGY STAR® Bathroom Fans Per HVI Standards	0			1			Testing required
	H5. Advanced Practices for Cooling							
No	H5.1 ENERGY STAR® Ceiling Fans in Living Areas and Bedrooms	0		1				
No	H5.2 Operable Windows and Skylights Located to Induce Cross Ventilation in At Least One Room in 80% of Units	0		1				
	H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality							
Yes	H6.1 Meet ASHRAE Standard 62.2-2016 Ventilation Residential Standards	Y	R	R	R	R	R	
No	H6.2 Advanced Ventilation Standards	0			2			HRV
TBD	H6.3 Outdoor Air is Filtered and Tempered				1			MERV 6 min required
	H7. Effective Range Design and Installation							
No	H7.1 Effective Range Hood Ducting and Design	0			1			
No	H7.2 Automatic Range Hood Control	0			1			
No	**H8. High Efficiency HVAC Filter (MERV 16+)**	0			1			
No	**H9. Advanced Refrigerants**	0			1			
I. RENEWABLE ENERGY								
	I1. Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)			25				This project will have solar - PYA
	I2. Net Zero Energy Home							
No	I2.1 Near Zero Energy Home	0		2				
No	I2.2 Low Carbon Home	0		4				
No	**I3. Energy Storage**	0		1				
No	**I4. Solar Hot Water Systems to Preheat Domestic Hot Water**	0		4				No SHW - PYA

Lake Merritt BART Redevelopment Building D		Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
≥60% of common area	**I5. Photovoltaic System for Multifamily Projects**	4		8				This project will have solar; all electric bldg - PYA
J. BUILDING PERFORMANCE AND TESTING								
No	**J1. Third-Party Verification of Quality of Insulation Installation**	0			1			
No	**J2. Supply and Return Air Flow Testing**	0		1	1			
No	**J3. Mechanical Ventilation Testing and Low Leakage**	0			1			
No	**J4. All Electric or Combustion Appliance Safety Testing**	0			1			
	J5. Building Energy Performance							
Option 2: All Electric Compliance	J5.1 Home Outperforms Title 24	27		25+				Option 1: Mixed Fuel - High Rise: Compliance margin is 10% over T24 or higher w/o PV credit OR 4% over T24 and 40% including PV and Process Credit. Low Rise: Minimum Total (EDR) margin ranges from 6-10 based on climate zone. Both high-rise and low-rise require pre-wiring requirements: Dryer - conductor rated for 40 amp, Range - conductor rated for 50 amp. PV and storage credit allowed. Option 2: All Electric Compliance - High-Rise: meet T24. Low Rise: Meet Efficiency (EDR) margin based on climate zone (0-5). PV and Storage credit allowed. Option 3: Annual Energy Use - Minimum 20% compliance based on annual energy use. PV credit not allowed
1.0%	J5.2 Non-Residential Spaces Outperform Title 24	1.0		15				One Energy Point for Every 1%
Yes	**J6. Title 24 Prepared and Signed by a CABEC Certified Energy Analyst**	1		1				
No	**J7. Participation in Utility Program with Third-Party Plan Review**	0		1				
No	**J8. ENERGY STAR® for Homes**	0		1				
No	**J9. EPA Indoor airPlus Certification**				2			
TBD	**J10. Blower Door Testing**				3			
No	**J11. Compartmentalization of Units**	0		1	1			
K. FINISHES								
	K1. Entryways Designed to Reduce Tracked-In Contaminants							
No	K1.1 Entryways to Individual Units	0			1			
TBD	K1.2 Entryways to Buildiings				1			6 ft in direction of travel
	K2. Low-VOC Interior Wall and Ceiling Paints							
Yes	K2.1 Zero-VOC Interior Wall and Ceiling Paints (< 5 gpl)	2			2			
No	**K3. Low-VOC Caulks and Adhesives**	0			1			
	K4. Environmentally Preferable Materials for Interior Finish							
No	K4.1 Cabinets	0				2		
TBD	K4.2 Interior Trim					2		
No	K4.3 Shelving	0				2		
No	K4.4 Doors	0				2		
No	K4.5 Countertops	0				1		
	K5. Formaldehyde Emissions in Interior Finish Exceed CARB							
No	K5.1 Doors	0			1			
No	K5.2 Cabinets and Countertops	0			2			
No	K5.3 Interior Trim and Shelving	0			2			
No	**K6. Products That Comply With the Health Product Declaration Open Standard**	0			2			
No	**K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion**	0			2			
No	**K8. Comprehensive Inclusion of Low Emitting Finishes**				1			
No	**K9. Durable Cabinets**	0				2		
No	**K10. At Least 25% of Interior Furniture Has Environmentally Preferable Attributes**	0				1		

	Lake Merritt BART Redevelopment Building D	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
L. FLOORING								
TBD	**L1. Environmentally Preferable Flooring**					3		
≥75%	**L2. Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential**	3			3			
No	**L3. Durable Flooring**	0				1		
No	**L4. Thermal Mass Flooring**	0		1				
M. APPLIANCES AND LIGHTING								
Yes	**M1. ENERGY STAR® Dishwasher**	1					1	
	M2. Efficient Clothes Washing and Drying							
TBD	M2.1. CEE-Rated Clothes Washer			1			2	
Yes	M2.2 ENERGY STAR® Dryer	1		1				
No	M2.3 Solar Dryer/ Laundry Lines	0		0.5				
<20 cubic feet	**M3. Size-Efficient ENERGY STAR® Refrigerator**	2		2				
	M4. Permanent Centers for Waste Reduction Strategies							
No	M4.1 Built-In Recycling Center	0				1		
No	M4.2 Built-In Composting Center	0				1		
	M5. Lighting Efficiency							
Yes	M5.1 High-Efficacy Lighting	2		2				
No	M5.2 Lighting System Designed to IESNA Footcandle Standards or Designed by Lighting Consultant	0		2				
TBD	**M6. Electric Vehicle Charging Stations and Infrastructure**			2				
Yes	**M7. Central Laundry**	1					1	Central laundry in bldg - PYA
TBD	**M8. Gearless Elevator**			1				gearless or traction = ok ; geared or hydrolic = NO
N. COMMUNITY								
	N1. Smart Development							
Yes	N1.1 Infill Site	2	1			1		
No	N1.2 Designated Brownfield Site	0	1			1		
>35	N1.3 Conserve Resources by Increasing Density	4		2		2		
No	N1.4 Cluster Homes for Land Preservation	0	1			1		
	N1.5 Home Size Efficiency					10		
	Enter the area of the home, in square feet							
1	Enter the number of bedrooms							
	N2. Home(s)/Development Located Near Transit							
No	N2.1 Within 1 Mile of a Major Transit Stop	0	1					
Yes	N2.2. Within 1/2 mile of a Major Transit Stop	2	2					
	N3. Pedestrian and Bicycle Access							
	N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services	2	2					
10	Enter the number of Tier 1 services							
10	Enter the number of Tier 2 services							
TBD	N3.2 Connection to Pedestrian Pathways		1					
TBD	N3.3 Traffic Calming Strategies		2					
Yes	N3.4 Sidewalks Buffered from Roadways and 5-8 Feet Wide	1	1					
Yes	N3.5 Bicycle Storage for Residents	1	1					60 long term bike spaces; 15% of total occupants (2 ppl/
TBD	N3.6 Bicycle Storage for Non-Residents		1					15 short-term bike spaces
1 space per unit	N3.7 Reduced Parking Capacity	2	2					100 parking spaces total
	N4. Outdoor Gathering Places							
TBD	N4.1 Public or Semi-Public Outdoor Gathering Places for Residents		1					Need either 25 or 50 sq ft depending on if density is < 50 units/ ares or greater
TBD	N4.2 Public Outdoor Gathering Places with Direct Access to Tier 1 Community Services		1					
	N5. Social Interaction							
TBD	N5.1 Residence Entries with Views to Callers		1					double peep holes or sidelights qualify
Yes	N5.2 Entrances Visible from Street and/or Other Front Doors	1	1					
No	N5.3 Porches Oriented to Street and Public Space	0	1					
	N6. Passive Solar Design							
No	N6.1 Heating Load	0		2				
No	N6.2 Cooling Load	0		2				
	N7. Adaptable Building							
TBD	N7.1 Universal Design Principles in Units		1		1			EBALDC to consider - PYA
No	N7.2 Full-Function Independent Rental Unit	0	1					
	N8. Resiliency							
No	N8.1 Climate Impact Assessment	0	1		1	1		
No	N8.2 Strategies to Address Assessment Findings	0	1		1	1		
	N9. Social Equity							
No	N9.1 Diverse Workforce	0	1			1		
No	N9.2 Community Location	0	1		1			
	N10. Affordability							

	Lake Merritt BART Redevelopment Building D	Points Targeted	Community	Energy	IAQ/Health	Resources	Water	
≥50%	N10.1 Dedicated Units for Households Making 80% of AMI or Less	2	2					EBALDC to confirm units to serve 60% AMI or below - PY
No	N10.2 Units with Multiple Bedrooms for Households Making 80% of AMI or Less	0	1					
No	N10.3 At Least 20% of Units at 120% AMI or Less are For Sale	0	1					
	N11. Mixed-Use Developments							
No	N11.1 Live/Work Units Include a Dedicated Commercial Entrance	0	1					
TBD	N11.2 At Least 2% of Development Floor Space Supports Mixed Use		1					
No	N11.3 Half of the Non-Residential Floor Space is Dedicated to Community Service	0	1					
O. OTHER								
Yes	**O1. GreenPoint Rated Checklist in Blueprints**	Y	R	R	R	R	R	
Yes	**O2. Pre-Construction Kickoff Meeting with Rater and Subcontractors**	2		0.5		1	0.5	Yes - PYA
Yes	**O3. Orientation and Training to Occupants—Conduct Educational Walkthroughs**	2		0.5	0.5	0.5	0.5	Yes - PYA
No	**O4. Builder's or Developer's Management Staff are Certified Green Building Professionals**	0		0.5	0.5	0.5	0.5	
	O5. Home System Monitors							
No	O5.1. Home Energy Monitoring Systems	0		1				
No	O5.2. Home Water System Monitors	0					1	
	O6. Green Building Education							
TBD	O6.1 Marketing Green Building		2					
TBD	O6.2 Green Building Signage			0.5			0.5	
Yes	**O7. Green Appraisal Addendum**	Y	R	R	R	R	R	
No	**O8. Detailed Durability Plan and Third-Party Verification of Plan Implementation**	0				1		LEED for Homes standard
TBD	**O9. Residents Are Offered Free or Discounted Transit Passes**		2					EBALDC to confirm as part of green trips program - PYA
No	**O10. Vandalism Deterrence Practices and Vandalism Management Plan**	0	1					
Yes	**O11. Smokefree Housing**	2			2			Yes - PYA
No	**O12. Integrated Pest Management Plan**	0			1			
P. DESIGN CONSIDERATIONS								
	P1. Acoustics: Noise and Vibration Control		1		1			
	Enter the number of Tier 1 practices							higher standard than code
	Enter the number of Tier 2 practices							
	P2. Mixed-Use Design Strategies							
No	P2.1 Tenant Improvement Requirements for Build-Outs	0			1		1	
Yes	P2.2 Commercial Loading Area Separated for Residential Area	1			1			Yes- PYA
TBD	P2.3 Separate Mechanical and Plumbing Systems				1			Yes - PYA
	P3. Commissioning							
No	P3.1 Design Phase	0		1	1			
No	P3.2 Construction Phase	0		2	1			
No	P3.3 Post-Construction Phase	0		2	1			
No	**P4. Building Enclosure Testing**	0		1	1	1		
INNOVATIONS								
Yes	**Dual trash chutes**	1				1		
No	**Enter Innovation 2 description here. Enter up to four points at right.**	0						
No	**Enter Innovation 3 description here. Enter up to four points at right.**	0						
No	**Enter Innovation 4 description here. Enter up to four points at right.**	0						
	Summary		Community	Energy	IAQ/Health	Resources	Water	
	Total Available Points in Specific Categories	406	47	136	73	92	58	
	Minimum Points Required in Specific Categories	50	2	25	6	6	6	
	Total Points Targeted	**105.0**	**12.0**	**42.0**	**16.5**	**25.5**	**9.0**	

APPENDIX E

Non-CEQA Transportation Analysis/ Transportation Tables

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Memorandum

Date: May 12, 2021

To: Elizabeth Kanner, ESA

From: Sam Tabibnia, Fehr & Peers

Subject: Lake Merritt TOD Project - Transportation Impact Review (non-CEQA)

OK19-0339

This memorandum summarizes non-CEQA transportation assessment that Fehr & Peers completed for the proposed Lake Merritt BART TOD Project in Oakland. The information provided in this memorandum is based on the City of Oakland's *Transportation Impact Review Guidelines* (TIRG) published in April 2017. Sections in this memorandum include:

1. Project Description

The Project consists of redevelopment of two blocks adjacent to the Lake Merritt BART Station in Oakland. The development on each block is described below:

- Block 1 is bounded by 8th Street to the south, Oak Street to the west, 9th Street to the north, and Fallon Street to the east. Currently, Block 1 consists of a parking lot and an entrance to the Lake Merritt BART Station. The Block 1 development would consist of the following buildings:
  - Building A would be a 28-story development consisting of up to 360 market-rate residential rental units and 4,500 square feet of retail.

  - Building B would be a seven-story development consisting of up to 97 affordable senior living units and 3,000 square feet of retail.

  Block 1 would maintain the publicly owned BART plaza and include a pedestrian paseo through the center of the block between Oak and Fallon Streets. The Project would provide a parking garage accommodating 105 vehicles in Building A with a right-in/ right-out only driveway on 9th Street. Block 1 would also provide 106 long-term and 28 short-term bicycle parking spaces.

- Block 2 is bounded by 7th Street to the south, Madison Street to the west, 8th Street to the north, and Oak Street to the east. Currently, Block 2 is occupied by the Metro Center office building and a parking lot. About 100,000 square feet of the building is currently occupied with about 275 employees. The Block 2 development would consist of the following buildings:

  - Building C would be a 19-story development consisting of 495,300 square feet of office space and 11,000 square feet of retail.
  - Building D would be a seven-story development consisting of up to 100 affordable housing units and 6,200 square feet of day-care space.

  Block 2 would provide two parking garages for Buildings C and D accommodating a total of 303 vehicles (254 spaces in Building C garage and 49 spaces in the Building D garage) with two left-in/left-out only driveways on 7th Street. Block 2 would also provide 81 long-term and 35 short-term bicycle parking spaces.

Overall, the Project would provide 495,300 square feet of office space, 6,200 square feet of day-care space, 18,500 square feet of retail, and 557 dwelling units, as well as 408 vehicle parking spaces.

Project Improvements in the Public Right-of-Way

Separate from the Project, BART is preparing the *Lake Merritt BART TOD Access Study* to ensure continued safe and efficient access to the BART station for all travel modes, with a focus on improving and encouraging non-single occupant automobile modes. The Access Study (the latest draft is dated January 2021) recommends improvements along the frontages of both Project blocks as well as the BART Plaza and on the adjacent streets. **Appendix B** shows the recommendations from the *Lake Merritt BART Access Study*.

The Project incorporates some of the preliminary recommendations included in the Access Study. The Project would include the following improvements in the public right-of-way:

- Dual-directional curb-ramps at the intersection corners adjacent to the Project and as mid-block ramps at the designated loading areas;

- High-visibility crosswalks on all the approaches of the intersections adjacent to the Project;
- Concrete bulb-outs at the intersection corners adjacent to the Project;
- Sidewalk improvements that generally provide a minimum pedestrian clear width of 8 feet along Block 1 frontages and 5.5 feet along Block 2 frontages;
- On-street passenger loading (including ADA-designated passenger loading) and associated sidewalk, curb improvements, and striping;
- ADA-designated on-street parking spaces;
- A two-way Class 4 separated bikeway, at the roadway level, on the south side of 9th Street between Oak and Fallon Streets;
- A one-way westbound Class 2B buffered bicycle lane on the north side of 8th Street between Fallon and Oak Streets;
- A one-way southbound Class 4 separated bikeway, at the roadway level, on the west side of Fallon Street between 8th and 9th Streets; and
- Amenities such as street trees, short-term bicycle parking, and dockless scooter corrals along the Project frontage sidewalks that do not block the pedestrian through zones.

The modifications proposed by the Project in the public right-of-way are consistent with the City's requirements and would not conflict with the City's planned improvements. The *Lake Merritt Station Area Plan (LMSAP)* identifies the conversion of several corridors in the area, including Madison, Oak, and 9th Streets adjacent to the Project, from one-way to two-way operations. The modifications proposed by the Project and described above would not prevent the future conversion of these corridors to two-way operations. In addition, the Oakland-Alameda Access Project proposes installation of a Class 4 separated bikeway along the west side of Oak Street and conversion of Madison Street from one-way southbound to two-way operations, which the Project would not prevent the future implementation of these street modifications.

This TIR recommends the implementation of additional improvements that are consistent with the ones that the City of Oakland TIRG and the Standard Condition of Approval (SCA) #78 (Transportation and Parking Demand Management) would require the Project to implement.

2. Trip Generation

Automobile Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access the Project on a typical weekday. **Table 1** presents the Project trip generation by building, block, and the entire Project. Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual (10th Edition)* was used as a starting point to estimate the vehicle trip generation.

The ITE data is primarily based on data collected at single-use suburban sites where the automobile is often the only travel mode. However, the Project site is in a dense mixed-use urban environment where many trips are walk, bike, or transit trips. Since the Project is adjacent to the Lake Merritt BART Station, this analysis reduces the ITE-based trip generation by 47 percent to account for the non-vehicular trips. This adjustment is consistent with the City of Oakland's TIRG and is based on US Census commute data for Alameda County from the 2014 5-Year Estimates of the American Community Survey (ACS), which shows that the non-automobile mode share for urban areas within 0.5 miles of a BART station is about 47 percent.

The trip generation also accounts for the trips generated by the existing uses at the site that would be eliminated by the Project. The Project is estimated to generate about 4,130 daily, 352 AM peak hour, and 419 PM peak hour net new automobile trips. The Project trip generation does not account for the trips generated by the existing BART parking lots on Blocks 1 and 2 that would be demolished by the Project to present a more conservative analysis.

The Project trip generation based on the TIRG process and presented in Table 1 may be overestimating the actual automobile trips generated by the Project. The TIRG process estimates about 350 or more peak hour trips, while all the Project components combined would provide 408 off-street parking spaces. Since it is not likely that most of the off-street parking spaces would turnover during the peak hours, it is likely that the peak hour vehicle trips generated by the Project's parking supply will be less than the estimated peak hour Project trip generation using the TIRG procedures. Thus, the Project trip generation presented in Table 1 may be overestimating the automobile trips that would be generated by the Project. Additionally, there are several other parking facilities in the vicinity of the Project that are open to the public and can be used by the Project residents, employees, and visitors if the Project parking facilities are at capacity. Although many of these public parking facilities currently operate at or near capacity on most weekdays, this analysis assumes that off-street parking facilities in the vicinity of the Project would be available to Project residents, employees, and visitors who choose to drive. Therefore, this analysis uses the TIRG-based trip generation to present a more conservative estimate of the automobile trips generated by the Project.

Table 1: Project Automobile Trip Generation

Land Use	ITE Code	Size[1]	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
BLOCK 1 - PROJECT									
Building A									
Residential[2]	221	360 DU	1,960	34	96	130	96	62	158
Retail[4]	820	4.5 KSF	170	2	2	4	8	9	17
Subtotal			2,130	36	98	134	104	71	175
Non-Auto Reduction[5]			-1,000	-17	-46	-63	-49	-33	-82
Adjusted Building A Project Trips			**1,130**	**19**	**52**	**71**	**55**	**38**	**93**
Building B									
Residential (Senior Housing)[6]	252	97 DU	360	7	12	19	14	11	25
Retail[4]	820	3.0 KSF	110	2	1	3	5	6	11
Subtotal			470	9	13	22	19	17	36
Non-Auto Reduction[5]			-220	-4	-6	-10	-9	-8	-17
Adjusted Building B Project Trips			**250**	**5**	**7**	**12**	**10**	**9**	**19**
Block 1 Subtotal			***1,380***	***24***	***59***	***83***	***65***	***47***	***112***
BLOCK 2 – PROJECT									
Building C									
Office[3]	710	495.3 KSF	5,010	423	69	492	83	438	521
Retail[4]	820	11.0 KSF	420	6	4	10	20	22	42
Subtotal			5,430	429	73	502	103	460	563
Non-Auto Reduction[5]			-2,550	-201	-34	-235	-48	-216	-264
Adjusted Building C Project Trips			**2,880**	**228**	**39**	**267**	**55**	**244**	**299**
Building D									
Residential[2]	221	100 DU	540	9	27	36	27	17	44
Day-Care[7]	565	6.2 KSF	300	36	32	68	32	37	69
Subtotal			840	45	59	104	59	54	113
Non-Auto Reduction[5]			-390	-21	-28	-49	-28	-25	-53
Adjusted Building D Project Trips			**450**	**24**	**31**	**55**	**31**	**29**	**60**
Block 2 Subtotal			***3,330***	***252***	***70***	***322***	***86***	***273***	***359***
BLOCK 2 - EXISTING									
Office[8]	710	275 Employees	1,100	83	17	100	20	78	98

Table 1: Project Automobile Trip Generation

Land Use	ITE Code	Size[1]	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
Non-Auto Reduction[5]			-520	-39	-8	-47	-9	-37	-46
Adjusted Existing Trips			580	44	9	53	11	41	52
Net Block 2 Subtotal			***2,750***	***208***	***61***	***269***	***75***	***232***	***307***
TOTAL PROJECT TRIPS			**4,710**	**276**	**129**	**405**	**151**	**320**	**471**
NET NEW PROJECT TRIPS			***4,130***	***232***	***120***	***352***	***140***	***279***	***419***

Notes:
1. DU = Dwelling Units, KSF = 1,000 square feet.
2. ITE Trip Generation (10th Edition) land use category 221 (Multifamily Housing (Mid-Rise) in General Urban/Suburban Setting):
   Daily: T = 5.44(X)
   AM Peak Hour: T = 0.36(X) (21% in, 79% out)
   PM Peak Hour: T = 0.44(X) (65% in, 35% out)
3. ITE Trip Generation (10th Edition) land use category 710 (General Office Building in General Urban/Suburban Setting by KSF):
   Daily: Ln(T) = 0.97Ln(X)+2.50
   AM Peak Hour: T = 0.94+26.49 (86% in, 14% out)
   PM Peak Hour: T = Ln(T)=0.95Ln(X)+0.36 (16% in, 84% out)
4. ITE Trip Generation (10th Edition) land use category 820 (Shopping Center in General Urban/Suburban Setting):
   Daily: T = 37.75(X)
   AM Peak Hour: T = 0.94(X) (62% in, 38% out)
   PM Peak Hour: T = 3.81(X) (48% in, 52% out)
5. Reduction of 46.9% assumed, based on City of Oakland Transportation Impact Review Guidelines using Census data for urban environments within 0.5 miles of a BART station.
6. ITE Trip Generation (10th Edition) land use category 252 (Senior Adult Housing (Attached) in General Urban/Suburban Setting):
   Daily: T = 3.70(X)
   AM Peak Hour: T = 0.20(X) (34% in, 66% out)
   PM Peak Hour: T = 0.26(X) (54% in, 46% out)
7. ITE Trip Generation (10th Edition) land use category 565 (Day-Care Center in General Urban/Suburban Setting):
   Daily: T = 47.62(X)
   AM Peak Hour: T = 11.00(X) (53% in, 47% out)
   PM Peak Hour: T = 11.12(X) (47% in, 53% out)
8. ITE Trip Generation land use category 710 (General Office Building in General Urban/Suburban Setting by Employee):
   Daily: Ln(T) = 0.80 * ln(X) + 2.51
   AM Peak Hour: Ln(T) = 0.72 * ln(X) + 0.56 (88% in, 12% out)
   PM Peak Hour: T = 0.27(X) + 23.57 (17% in, 83% out)

Source: Fehr & Peers, 2021.

Non-Automobile Trip Generation

Consistent with the City of Oakland TIRG, **Table 2** presents the estimates of Project trip generation for all travel modes for the Project.

Table 2: Project Trip Generation by Travel Mode

Mode	Mode Share Adjustment Factors[1]	Daily	AM Peak Hour	PM Peak Hour
Automobile	0.531	4,130	352	419
Transit	0.297	2,310	197	234
Bike	0.051	400	34	40
Walk	0.105	820	70	83
	Total Net Trips	**7,660**	**653**	**776**

Notes:

1. Based on *City of Oakland TIRG*, for an urban environment within 0.5 miles of a BART station.

Source: Fehr & Peers, 2021.

3. Trip Distribution, Trip Assignment, and Study Intersection Selection

The trip distribution and assignment process is used to estimate how the trips generated by the Project would be distributed across the roadway network. Based on existing travel patterns, locations of complementary land uses, results of the Alameda County Transportation Commission's (Alameda CTC) Travel Demand Model, and the one-way street network and turn restrictions in Downtown Oakland, we determined directions of approach to and departure from the Project site. **Figure 1** shows the resulting trip distribution; all figures are attached at the end of this memorandum.

According to the TIRG, the criteria for selecting study intersections include:

- All intersection(s) of streets adjacent to Project site;
- All signalized intersection(s), all-way stop-controlled intersection(s) or roundabouts where 100 or more peak hour trips are added by the Project;
- All signalized intersection(s) with 50 or more Project-related peak hour trips and existing LOS D-E-F; and
- Side-street stop-controlled intersection(s) where 50 or more peak hour trips are added by the Project to any individual movement other than the major-street through movement.

The following 15 intersections as shown on **Figure 2**, would meet the criterion for Project adding 50 or more peak hour trips to a signalized intersection:

1. 9th Street/Oak Street
2. 9th Street/Fallon Street
3. 8th Street/Jackson Street
4. 8th Street/Madison Street
5. 8th Street/Oak Street
6. 8th Street/Fallon Street
7. 7th Street/Jackson Street
8. 7th Street/Madison Street
9. 7th Street/Oak Street
10. 7th Street/Fallon Street
11. 8th Street/Harrison Street
12. 5th Avenue/8th Street
13. 6th Street/Jackson Street
14. 6th Street/Oak Street
15. 5th Street/Jackson Street

In addition, intersections #1, #2, #4, #5, #6, #8, and #9 satisfy the criterion for being adjacent to the Project.

The following recent development project Transportation Impact Reviews evaluated three of these intersections:

- The Howard Terminal Project (published in February 2021) included intersection #11 (8th Street/ Harrison Street) as a study intersection
- The Brooklyn Basin Marina Expansion Project (to be published) included intersections #12 and #13 (5th Avenue/8th Street and 6th Street/Jackson Street) as study intersections

Since these three intersections had count data collected and were evaluated recently, they are not included in this TIR.

In addition, according to the *Lake Merritt Station Area Plan (LMSAP) Draft EIR*, intersections #14 and #15 (6th Street/Oak Street and 5th Street/Jackson Street) operate at LOS C or better during both AM and PM peak hours. Since the Project would add fewer than 50 peak hour trips to these intersections, they would not need to be evaluated in the Project TIR.

Thus, this TIR includes intersections #1 through #10 as study intersections.

Due to changes in travel patterns resulting from the ongoing COVID-19 pandemic and mandatory shelter-in-place orders for Alameda County starting on March 16, 2020, current turning movement counts do not accurately reflect typical conditions. Instead, intersection counts previously collected at the study intersections evaluated within the past five years were used for this analysis. **Table 3** summarizes the project source and date of count collection for the study intersections.

Table 3: Existing Count Sources

#	Intersection	Source	Collection Date
1	9th Street/Oak Street	Howard Terminal Project	January 31, 2019
2	9th Street/Fallon Street	LMSAP	May 2012 [1]
3	8th Street/Jackson Street	LMSAP	May 2012 [1]
4	8th Street/Madison Street	City of Oakland	January 24, 2020
5	8th Street/Oak Street	City of Oakland	January 23, 2020
6	8th Street/Fallon Street	LMSAP	May 2012 [1]
7	7th Street/Jackson Street	Oakland-Alameda Access Study	April 28, 2015
8	7th Street/Madison Street	Oakland-Alameda Access Study	April 28, 2015
9	7th Street/Oak Street	Oakland-Alameda Access Study	October 10, 2017
10	7th Street/Fallon Street	Howard Terminal Project	January 31, 2019

Notes:

1. The 2012 LMSAP counts were adjusted based on the traffic volume change at other study intersections between 2012 and the more recent counts.

Source: Fehr & Peers, 2021.

As shown in Table 3, most intersection counts were collected within five years prior to the finalization of the Project scope, consistent with the TIRG. However, no recent counts were available at three of the study intersections (#2, #3, and #6). For these intersections, the analysis used the counts collected in 2012 for the 2014 LMSAP EIR, and adjusted those counts based on the traffic volume change between the LMSAP EIR counts in 2012 and the more recent counts at the other study intersections where more recent counts are available. Since the available data show that the more recent counts (2017 - 2020) are about 18 percent higher during the AM peak hour and 21 percent higher during the PM peak hour than the 2012 counts, the 2012 counts at these three study intersections were increased by about 18 percent for the AM peak hour and 21 percent for the PM peak hour to be consistent with the more recent counts at the other study intersections.

4. Site Access and Circulation Analysis

Fehr & Peers reviewed the Project site plan dated April 27, 2021 and the existing street network adjacent to the Project site to evaluate safety, access, and circulation for all travel modes. This assessment also considers the *Lake Merritt TOD Access Study* recommendations adjacent to the Project sites.

Automobile Access and Circulation

Block 1

Currently, Block 1 is occupied by a parking lot for BART riders. Access to the existing site is provided via midblock driveways on 8th and 9th Streets between Oak and Fallon Streets. The driveway on 8th Street would be eliminated by the Project. The Project would provide a parking garage accommodating 105 parking spaces (including two accessible spaces, two spaces for BART employees, and three carshare spaces for both Buildings A and B) on the second through fourth levels of Building A with a curving ramp connecting to a right-in/right-out only driveway on 9th Street, about 170 feet east of Oak Street. A separate driveway on 9th Street, about 40 feet east of the garage driveway, would accommodate two loading docks on the ground level of Building A, which trucks would back into. As shown in the turning exhibits in **Appendix A**, small trucks, such as a UPS delivery truck or a garbage truck, would be able to maneuver into and out of the Building A loading docks; however, larger trucks may not be able to maneuver into and out of these loading docks.

The Building A garage driveway would provide adequate sight distance between vehicles exiting the garage and pedestrians on the adjacent sidewalk. Adequate sight distance is defined as a clear line-of-sight between a motorist ten feet back from the sidewalk and a pedestrian 10 feet away on each side of the driveway. The Building A driveway would also provide adequate sight distance between vehicles entering and exiting the driveway and bicyclists in both directions of the proposed cycle track (two-way protected bikeway) on the south side of 9th Street and through vehicles on the one-way eastbound 9th Street.

Appendix A shows turning exhibits for all Project driveways. Passenger vehicles would turn right into and out of the driveway to and from eastbound 9th Street. However, some vehicles may not be able to turn into the Building A driveway if another vehicle is waiting to turn out. Considering the low traffic volumes and low speeds on 9th Street and the distance between the driveway and adjacent intersections, vehicles wishing to turn into the driveway can wait on 9th Street while the vehicles exiting the garage complete their turn without blocking through traffic.

The Building A parking garage ramp would provide adequate space for two vehicles to drive in opposite direction simultaneously. The garage would provide adequate space for vehicles to maneuver into and out of the parking spaces.

Block 2

Block 2 is currently occupied by the Metro Center office building and a surface parking lot. Access to the existing site is provided by one driveway on 7th Street between Madison and Oak Streets. The Project would provide parking garages for both Buildings C and D accommodating a total of 303 vehicles. Building C garage would accommodate 254 parking spaces in two underground levels and Building D would accommodate 49 parking spaces on the ground level garage (consisting of 47 spaces in mechanical lifts and two surface accessible spaces). Both garages would be accessed through left-in/left-out only driveways on 7th Street. A separate curb-cut on 7th Street east of the Building C garage driveway would accommodate loading docks for three trucks. The Building D garage would also provide a loading space. As shown in the turning exhibits in Appendix A, smaller trucks would be able to maneuver into and out of the loading docks for both Buildings C and D. Although larger trucks are not expected to access the Building D loading dock, they are expected to access the Building C loading docks; however, larger trucks may not be able to maneuver into and out of these loading docks.

Based on the Project site plan, the Building D garage driveway may not provide adequate sight distance between exiting vehicles and pedestrians on the adjacent sidewalk. The driveway should be redesigned to provide adequate sight distance. If adequate sight distance cannot be achieved, audio and visual warnings devices should be installed at the driveway. Alternatively, since the adjacent sidewalk is about 20 feet wide, low landscaping strip can be provided adjacent to the driveway to improve the sight distance by making the pedestrians walk in the middle of the sidewalk and not along the edge of the buildings.

Both Buildings C and D garage driveways would provide adequate sight distance between vehicles exiting the driveway and the eastbound through traffic on 7th Street since no on-street parking would be provided along the north side of 7th Street.

As shown in Appendix A, passenger vehicles would turn left into and out of the Buildings C and D driveways to and from eastbound 7th Street. However, some vehicles may not be able to turn into these driveways if another vehicle is waiting to turn out. Considering the relatively high traffic volumes and speeds on 7th Street, vehicles wishing to turn into the driveway on 7th Street, may block and conflict with the through traffic on 7th Street. Thus, the Building C and D garage curb-cuts should be widened to accommodate vehicles simultaneously entering and existing the garage.

As shown in Appendix A, vehicles using the Building C garage internal ramps may conflict with vehicles traveling in the opposite direction. Although the ramps would provide adequate sight distance between vehicles on the ramps and vehicles on the parking level, the parking ramps should be redesigned to better accommodate turning vehicles. If the parking ramps cannot be redesigned, mirrors should be installed at the bottom and top of each internal ramp to improve the sight lines between vehicles traveling in opposite directions. Both Building C parking levels would provide adequate space for vehicles to maneuver into and out of the parking spaces. The Building D garage would provide adequate space for vehicles to maneuver into and out of both the mechanical and the regular accessible parking spaces.

Recommendation 1: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Ensure adequate sight distance between exiting vehicles and pedestrians on the adjacent sidewalk at the Building A driveway on 9th Street and the Building C and Building D driveways on 7th Street. If adequate sight distance cannot be achieved, provide audio and visual warning devices at the driveway and/or provide three-foot low landscaping buffer along the building edge adjacent to the driveways.
- Consider extending the Buildings C and D curb-cut to the west to widen the curb-cut to 27-feet to allow incoming and outgoing vehicles to utilize the driveways simultaneously.
- Study the turning movements for larger trucks (such as WB-40) maneuvering into and out of the Building A loading docks on 9th Street and the Building C loading docks on 7th Street to ensure adequate truck access.
- Consider redesigning the Building C garage to provide adequate circulation for vehicles and to allow two vehicles to simultaneously enter and exit the internal garage ramps. If the Building C garage cannot be redesigned, install mirrors at the bottom and top of each internal ramp to improve visibility.

Bicycle Access and Bicycle Parking

Currently, the following bicycle facilities are provided along the Project frontages:

- Class 2B buffered bicycle lane on southbound Madison Street which extends between the Lake Merritt path at the 19th Street/Lakeside Drive intersection in the north to 2nd Street in the south.
- Class 2B buffered bicycle lane on northbound Oak Street which extends between Embarcadero West in the south and 14th Street/Lake Merritt Boulevard to the north
- Class 2B buffered bicycle lane on eastbound 9th Street which extends between Harrison Street in the west and Fallon Street in the east.
- Class 2B buffered bicycle lane on westbound 8th Street which extends between Harrison Street in the west and Fallon Street in the east.

The City's 2019 Oakland Bike Plan (*Let's Bike Oakland*, May 2019) proposes Class 4 separated bikeways along the following corridors:

- Oak Street between 9th Street and Embarcadero West
- Fallon Street between 7th and 10th Streets
- 9th Street between Dr. Martin Luther King Way and Fallon Street
- 8th Street between Madison and Fallon Streets

The proposed Oakland-Alameda Access Project is expected to implement a two-way Class 4 separated bikeway on the west side of Oak Street, and buffered bicycle lanes on both directions of Madison Street, as part of the conversion of Madison Street from one-way southbound to two-way operations.

Based on the site plan, the Project would include the following modifications that would benefit bicyclists in the Project vicinity:

- Implementation of a two-way Class 4 separated bikeway, at the roadway level, on the south side of 9th Street between Oak and Fallon Streets.
- Implementation of a one-way westbound Class 2B buffered bicycle lane on the north side of 8th Street between Fallon and Oak Streets
- Implementation of a one-way southbound Class 4 separated bikeway, at the roadway level, on the west side of Fallon Street between 8th and 9th Streets;
- Conversion of the existing paint/post bulb-outs at the following intersections to concrete protected intersections (See Recommendation 4):
    - 9th Street/Oak Street
    - 8th Street/Madison Street
    - 8th Street/Fallon Street

The proposed two-way Class 4 separated bikeway on 9th Street would introduce a westbound bicycle movement to the signalized 9th Street/Oak Street intersection. The existing signal at the intersection should be upgraded to provide a bicycle signal phase for the westbound 9th Street bike approach.

The nearest Bay Wheels bike-share station to the Project site is located on the west side of Oak Street between 8th and 9th Streets, has 13 docks, and serves the Lake Merritt BART Station and the surrounding areas. The bike-share station would remain at the current location with the Project.

> **Recommendation 2:** While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:
>
> - 9th Street/Oak Street - Replace existing signals with new mast arms and signal heads to provide signal head for the westbound 9th Street bike approach.

Bicycle Parking

Chapter 17.117 of the Oakland Municipal Code requires long-term and short-term bicycle parking for new buildings. Long-term bicycle parking includes lockers or locked enclosures, and short-term bicycle parking includes bicycle U-racks.

Table 5 summarizes the long-term and short-term bicycle parking requirements for each Project building. The proposed bicycle parking supply for each project building is:

- Building A would provide 92 long-term bicycle parking spaces in a bike room on the ground level of the building accessible through the main building lobby. The building would provide short-term bicycle parking for 21 bicycles in the form of bicycle racks on the sidewalks along the Project frontage. Both the long-term and short-term bicycle parking would meet Code requirements.
- Building B would provide 14 long-term bicycle parking spaces in a bike room on the ground level of the building. The building would provide short-term bicycle parking for seven bicycles in the form of bicycle racks on the sidewalks along the Project frontage. Both the long-term and the short-term parking would meet Code requirements.
- Building C would provide 54 long-term bicycle parking spaces in a bike room on the ground level of the building. The building would provide short-term bicycle parking for 28 bicycles in the form of bicycle racks on the sidewalks along the Project frontage. Both the long-term and the short-term parking would meet Code requirements. The building would also provide five showers and 20 lockers per gender, meeting Code requirements.
- Building D would provide 27 long-term bicycle parking spaces in a bike room on the ground level of the building. The building would provide short-term bicycle parking for seven bicycles in the form of bicycle racks on the sidewalks along the Project frontage. Both the long-term and the short-term parking would meet Code requirements.

Recommendation 3: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Ensure that at least two of the short-term bicycle parking spaces near the Building D day-care are cargo-bike accessible to facilitate day-care pick-ups and drop offs.
- Ensure the bike parking in the sidewalks, fronting all streets in the Project vicinity do not conflict with the minimum pedestrian clear width areas or do not conflict with the minimum of 48-inch clear distance at the curb to ensure access from the accessible passenger loading zones or parking spaces to the sidewalk.

Table 4: Bicycle Parking Requirements

		Long-Term		Short-Term	
Land Use	**Size[1]**	**Spaces per Unit[2]**	**Spaces**	**Spaces per Unit[2]**	**Spaces**
BLOCK 1					
Building A					
Residential	360 DU	1:4 DU	90	1:20 DU	18
Limited Service Restaurant	4.5 KSF	1:12 KSF	2	1:2 KSF	3
		Total Required Bicycle Spaces	**92**		**21**
		Total Bicycle Parking Provided	**92**		**21**
		Bicycle Parking Met?	**Yes**		**Yes**
Building B					
Residential (Senior Housing)	97 DU	1:10 DU	10	1:20 DU	5
Custom Manufacturing	2.0 KSF	1:15 KSF	2	None	0
Limited Service Restaurant	1.0 KSF	1:12 KSF	2	1:2 KSF	2
		Total Required Bicycle Spaces	**14**		**7**
		Total Bicycle Parking Provided	**14**		**7**
		Bicycle Parking Met?	**Yes**		**Yes**
BLOCK 2					
Building C					
Office	495.3 KSF	1:10 KSF	50	1:20 KSF	25
Retail	11.0 KSF	1:12 KSF	2	1:5 KSF	2
		Total Required Bicycle Spaces	**52**		**28**
		Total Bicycle Parking Provided	**54**		**28**
		Bicycle Parking Met?	**Yes**		**Yes**
Building D					
Residential	100 DU	1:4 DU	25	1:20 DU	5
Day-Care	6.2 KSF	NA[3]	2	NA[3]	2
		Total Required Bicycle Spaces	**27**		**7**
		Total Bicycle Parking Provided	**27**		**7**
		Bicycle Parking Met?	**Yes**		**Yes**

Notes:

1. DU = dwelling unit, KSF = 1,000 square feet
2. Based on Oakland Municipal Code Sections 17.117.090, 17.117.110, and 17.117.120. Minimum City of Oakland requirement for long-term and short-term bicycle parking is two long-term and two short-term spaces for each use.
3. Oakland Municipal Code does not provide bicycle parking requirements for this use and directs the Director of City Planning to determine the number of bicycle parking required. This analysis assumed the minimum bicycle parking required.

Source: Fehr & Peers, 2021.

Pedestrian Access and Circulation

Pedestrian access for each Project building is described below:

- Building A - Primary pedestrian access would be through a main lobby on the east side of the building on Fallon Street, which would connect to the upper levels through elevators and a stairwell. Secondary/emergency stairs would be located on the north side of the building. The retail component of the building would be located on the west side of the ground level of the building with frontages along 9th Street, the BART Plaza, and the Block 1 paseo.
- Building B - Primary pedestrian access would be through a main lobby at the southeast corner of the building at the corner of the 8th Street/Fallon Street intersection. Two additional entrances would be located on the north side of the building with access to the Block 1 paseo. The main stairwell and elevators would be accessed via the main lobby. The retail component of the building would be located on the west side of the ground level of the building with primary access along the Block 1 paseo.
- Building C - Primary pedestrian access would be through a main lobby on the north side of the building on 8th Street. Elevators and the main stairwell connect the main lobby to the upper levels as well as the underground parking levels. A secondary stairwell would be accessed via an additional building entrance on the south side of the building on 7th Street. The retail components of the building would be located on the east side of the ground level of the building along Oak Street and on the north side of the of the ground level of the building along 8th Street.
- Building D - Primary pedestrian access would be through the main residential lobby on the north side of the building on 8th Street, with a secondary stairwell located on the south side of the building on 7th Street. The day-care component of the building would be located on the west side of the building with access on Madison Street.

The existing pedestrian facilities at the intersections adjacent to the two Project blocks include:

- The 9th Street/Oak Street intersection is signalized and provides diagonal curb ramps at all corners except the northeast corner, which provides two bi-directional curb ramps. Truncated domes are provided on all curb ramps. Standard crosswalk markings are provided on all approaches. Pedestrian signal heads without countdowns, pedestrian pushbuttons, and audible signals are provided in all directions of crossing.
- The 9th Street/Fallon Street intersection is all-way stop controlled with standard crosswalk markings across all approaches except the north approach, which is unmarked. The intersection provides diagonal curb ramps at all corners except the northeast corner, which provides one directional curb ramp. Truncated domes are provided on the curb ramps serving the crossing across the Laney College driveway.

- The 8th Street/Madison Street intersection is signalized and provides diagonal curb ramps at all corners except the southwest corner, which provides two directional curb ramps. Truncated domes are provided on all curb ramps. High visibility crosswalk markings are provided on all approaches. Pedestrian countdown signal heads, pedestrian pushbuttons, and audible signals are provided in all directions of crossing. Painted curb extensions with bollards were recently installed at all four corners.
- The 8th Street/Oak Street intersection is signalized and provides diagonal curb ramps at all corners except the southeast corner, which provides two directional curb ramps. Truncated domes are provided on all curb ramps. High visibility crosswalk markings are provided on all approaches. Pedestrian countdown signal heads, pedestrian pushbuttons, and audible beaconing are provided in all directions of crossing. Painted curb extensions with bollards were recently installed at all four corners.
- The 8th Street/Fallon Street intersection is uncontrolled and one diagonal curb ramp with truncated domes is provided at the southwest corner. There are no crosswalk markings at the intersection.
- The 7th Street/Madison Street intersection is signalized and provides diagonal curb ramps with truncated domes at all corners. High visibility crosswalk markings are provided on all approaches. Pedestrian countdown signal heads and pedestrian pushbuttons are present in all directions of crossing. Audible signals are provided for north and south crossings. Painted curb extensions with bollards were recently installed at all four corners.
- The 7th Street/Oak Street intersection is signalized and provides diagonal curb ramps at all corners. Truncated domes are provided on all curb ramps. Standard crosswalk markings are present across all approaches. Pedestrian signal heads without countdowns are provided in all directions of crossing.

The Project would widen and/or reconstruct the existing sidewalks along the frontages of both Blocks. **Table 5** summarizes the proposed sidewalk widths, the minimum pedestrian through zone width, and if the pedestrian through zone width meets the City's minimum requirements which are eight feet for Block 1 and 5.5 feet for Block 2. The proposed sidewalk widths generally meet the City's minimum width requirements, except for a segment of 8th Street adjacent to Block 1, where the pedestrian through zone is only 7.8 feet wide. The sidewalk improvements would also include improvements to the sidewalk amenities and landscaping.

Table 5: Proposed and Recommended Sidewalk Widths

Project Frontage Block	Side of Street	Existing Sidewalk Width (feet)	Proposed Sidewalk Width[1] (feet)	Minimum Pedestrian Through Zone Width (feet)	Recommended Through Zone Width (feet)	Within or Exceed Recommended Range?
7th Street (between Madison and Oak Streets)	North	10.0	18.7	11.3	5.5	Yes
8th Street (between Madison and Oak Streets)	South	12.2	18.0	5.8	5.5	Yes
8th Street (between Oak and Fallon Streets)	North	12.2	12.5 – 18.5	7.8 – 16.2	8.0	No[2]
9th Street (between Oak and Fallon Streets)	South	10.0	16.3	8.2	8.0	Yes
Madison Street (between 7th and 8th Streets)	East	15.0	15.0	5.5	5.5	Yes
Oak Street (between 7th and 8th Streets)	West	21.5	21.1	5.5	5.5	Yes
Oak Street (between 8th and 9th Streets)	East	19.3	18.5	8.3	8.0	Yes
Fallon Street (between 8th and 9th Streets)	West	11.0	16.4	10.7	8.0	Yes

Notes:
1. Based on the Project site plan dated April 27, 2021
2. The recommended sidewalk width for this segment may not be feasible.

Source: Fehr & Peers, 2021.

The Project site plan includes pedestrian improvements at the intersections adjacent to both Project blocks. **Table 6** summarizes where these elements already exist, where they are proposed by the Project, and where they are recommended to be included in the Project final design to further improve pedestrian safety and convenience. The improvements proposed by the Project are primarily located at the intersection corners adjacent to the Project. This TIR recommends implementing these improvements at least at the receiving corners from the Project frontage corners and preferably at all intersection corners. The TIR also recommends signal equipment improvements at the intersections adjacent to the Project.

Table 6: Recommended Intersection Pedestrian Safety Improvements[1]

Intersection	Concrete Bulb-Outs/Protected Intersection	Directional Curb Ramps with Truncated	Accessible Ped Signals	Ped Countdown Signal Heads	Ped Pushbuttons	High-Vis Crosswalk Markings	Leading Ped Intervals	Advance Stop Bars
9th Street/Oak Street	P/R	P/R	E	R	E	P	R	R
9th Street/Fallon Street	P	P	N/A	N/A	N/A	R	N/A	R
8th Street/Madison Street	P/R	P/R	E	E	E	E	R	E
8th Street/Oak Street	P/R	P/R	E	E	E	E	R	E
8th Street/Fallon Street	P/R	P/R	N/A	N/A	N/A	R	N/A	R
7th Street/Madison Street	R	R	E	E	E	E	R	E
7th Street/Oak Street	R	R	R	R	N/A	R	R	R

Notes:

1. E = Existing, P = Proposed by Project, R = Recommended for inclusion in Project, P/R = Project proposes improvements at corner adjacent to the Project, but improvements are recommended for at least the receiving corner and preferred for the entire intersection.

Source: Fehr & Peers, 2021.

The Project proposes providing marked high-visible crosswalks across all approaches of the 8th Street/Fallon Street intersection and would narrow 8th Street to two lanes. Northbound Fallon Street would continue to provide two left-turn lanes. It is recommended to eliminate one of the two northbound left-turn lanes to improve visibility and reduce potential conflicts between the turning vehicles and pedestrians crossing the west and south crosswalks at the intersection and to reduce potential conflicts between the northbound left-turning vehicles and the southbound right-turning vehicles considering that the number of receiving lanes on 8th Street would be reduced from three to two lanes by the project.

The improvements proposed by the Project or recommended in this TIR are generally consistent with the recommended improvements in the City of Oakland's 2017 Pedestrian Plan Update (*Oakland Walks!)*, except at the 9th Street/Fallon Street intersection where the Pedestrian Plan recommends installation of Rectangular Rapid Flashing Beacons (RRFBs). Since the intersection is already all-way stop-controlled a RRFB is not recommended at the intersection. In addition to the installation of concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars as proposed by the Project, installation of a raised intersection or raised crosswalk on the south side of the intersection is recommended to improve the pedestrian crossing at the intersection.

Recommendation 4: While not required to address a CEQA impact, the following improvements shall be implemented by the Project at the discretion of City staff for at least the intersection corners along the Project frontages and the receiving corners, and preferably for the entire intersection, unless noted otherwise:

- 9th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, pedestrian countdown signal heads, high-visibility crosswalk markings, leading pedestrian intervals, and advance stop bars.
- 9th Street/Fallon Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars on the west and south approaches of the intersection. In addition, consider installing a raised intersection or a raised crosswalk on the south side of the intersection.
- 8th Street/Madison Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps and leading pedestrian intervals.
- 8th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps and leading pedestrian intervals.
- 8th Street/Fallon Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars. Eliminate one of the two left-turn lanes on the northbound Fallon Street approach.
- 7th Street/Madison Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, and leading pedestrian intervals.
- 9th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, accessible pedestrian signals, pedestrian countdown signal heads, high-visibility crosswalk markings, leading pedestrian intervals, and advance stop bars.

Transit Access

Transit service providers in the vicinity of the proposed Project include BART, AC Transit, and Amtrak as described below.

Bay Area Rapid Transit (BART)

BART provides regional rail service throughout the East Bay and across the San Francisco Bay. The nearest BART station to the Project is the Lake Merritt Station, located adjacent to the Project.

The Lake Merritt station is an underground station, with four access portals, providing access via stairs, an escalator, and an elevator. The portals are located on both sides of Oak Street with two portals south of 9th Street and two portals north of 8th Street.

Buildings A and B on Block 1 are located on the same block as two portals east of Oak Street. Thus, the BART station can be accessed without crossing any streets.

The Project is located adjacent to the Lake Merritt BART station, with two station portals just west of Buildings A and B on Block 1. Primary pedestrian entrances to Buildings C and D are within 0.1 miles from the southern station portal.

The Project would eliminate most of the existing parking spaces used by BART riders. The Project would continue to provide and enhance pedestrian and bicycle access for the BART station as described above.

Amtrak

Amtrak operates regional and interregional rail service at the Oakland Jack London Square Station on 2nd Street between Harrison and Jackson Streets. The Amtrak Station is about 0.5 miles southwest of the Project site or about a 10-minute walk. Several passenger rail lines, including the Capitol Corridor, the San Joaquin, and the Coast Starlight, use this Station.

Alameda-Contra Costa Transit District (AC Transit)

AC Transit is the primary bus service provider in 13 cities and adjacent unincorporated areas in Alameda and Contra Costa Counties, with Transbay service to destinations in San Francisco, San Mateo and Santa Clara Counties. Currently, the Lake Merritt BART station is served by Lines 18, 62, 88, and 96, which are described in **Table 7**.

Table 7: AC Transit Service Summary[1]

Line	Description	Weekday Hours of Operation	Weekday Headways[2]	Weekend Hours of Operation	Weekend Headways[2]
18	University Village, Albany, to Lake Merritt BART via Solano Ave., Shattuck Ave., and 7th/8th streets.	6:00 AM –12:40 AM	15-20 min (30 min)	6:00 AM –12:40 AM	15-20 min (30 min)
62	West Oakland BART to Fruitvale BART via 7th St.	6:00 AM –12:40 AM	20 min	6:20 AM – 12:50 AM	30 min
88	Downtown Berkeley to Lake Merritt BART via University Ave. and downtown Oakland.	5:20 AM –10:30 PM	20 min	5:20 AM –10:30 PM	20 min
96	Alameda Point to Dimond District via Webster/Posey Tubes, E. 10th St.	6:00 AM –10:50 PM	30 min	6:00 AM –10:50 PM	30 min

Notes:
1. Service description as of March 2020.
2. Headways in parentheses show off-peak headways if different from peak headways.

Source: AC Transit and Fehr & Peers, 2021.

Table 8 summarizes the AC Transit bus stops within 0.1 miles of the Project site and the amenities provided at these bus stops.

In addition, first/last mile and long-distance employer shuttles, such as Highland Hospital and Alameda County, use the BART parking lot and curb space along Oak Street for drop-off and pick-up. The Project proposes to designate a shuttle/paratransit/ADA passenger loading zone on the north side of 8th Street, just east of Oak Streets, consistent with the Access Study.

> **Recommendation 5:** While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:
>
> - If feasible, subject to additional approval by BART, replace the existing concrete canopy with ADA-accessible bus shelters near the curb at each bus stop on the east side of Oak Street between 8th and 9th Streets.

Table 8: AC Transit Bus Stops

Stop Location	Distance to Project Site[1]	Lines Served	Stop Amenities
Oak Street, north of 8th Street	Project frontage	62, 88, 96	Shelter, trash receptacle
8th Street, west of Oak Street	<0.1 mile	18, 62	No amenities
Madison Street, south of 9th Street	<0.1 mile	88, 96	Shelter, bench, trash receptacle
8th Street, east of Jackson Street	<0.1 mile	18, 62	Shelter, bench, trash receptacle
7th Street, east of Jackson Street	<0.1 mile	18, 62	No amenities
10th Street, east of Fallon Street	<0.1 mile	62, 96	Shelter, bench, trash receptacle

Notes:
1. Distance shown is walking distance between bus stop and nearest Project entrance.

Source: Fehr & Peers, 2021.

Off-Street Automobile Parking Requirements

The *City of Oakland Municipal Code* sets minimum and maximum parking requirements. According to Section 17.116.060, the residential components of the Project do not require any parking to be provided and allows a maximum parking limit of 1.25 spaces per unit. For the retail and office components of the Project, Section 17.116.090 does not require any parking to be provided, with maximum allowable parking of 1.0 spaces for each 300 square feet of ground floor area and 1.0 spaces per 500 square feet of above ground floor area.

Table 9 presents the off-street automobile parking requirements for the Project, per City of Oakland Municipal Code by building. Overall, the Project is required to provide between zero and 1,749 parking spaces. The Project would include 105 off-street parking spaces in Building A, 254 off-street parking spaces in Building C, and 49 parking spaces in building D for a total of 408 off-street parking spaces, which is more than the minimum requirement and less than the maximum allowed by City Code. Consistent with Code Section 17.116.310, all residential parking spaces would be leased separately from the rent of the dwelling units.

Table 9: Automobile Parking Code Requirements

Land Use	Size[1]	Required Off-Street Parking Supply		Provided Off-Street Parking Supply	Within Range?
		Minimum	Maximum		
BLOCK 1					
Building A					
Multi-family Residential[2]	360 DU	0	450		
Retail[3]	4.5 KSF	0	15		
	Subtotal	0	465	105	**Yes**
Building B					
Multi-family Residential[2]	97 DU	0	121		
Retail[3]	3.0 KSF	0	10		
	Subtotal	0	131	0	**Yes**
BLOCK 2					
Building C					
Office[3]	495.3 KSF	0	991		
Retail[3]	11.0 KSF	0	37		
	Subtotal	0	1,028	254	**Yes**
Building D					
Multi-family Residential[2]	100 DU	0	125		
Day-Care[4]	6.2 KSF	0	0		
	Subtotal	0	125	49	**Yes**

Notes:

1. DU = dwelling unit, KSF = 1,000 square feet
2. The City of Oakland does not have an off-street parking requirement for multi-family residential in the D-LM zone and allows a maximum of 1.25 spaces per unit (Section 17.116.060).
3. The City of Oakland does not have a minimum off-street parking requirement for Commercial Activities in the D-LM zone and allows a maximum of 1.0 spaces per 300 square feet of ground floor area and 1.0 spaces per 500 feet of above ground floor area.
4. The City of Oakland does not have a minimum or maximum off-street parking requirement for Child Care activities in the D-LM zone.

Source: Fehr & Peers, 2021.

The *City of Oakland Municipal Code* sets minimum car-share parking requirements in Downtown Zones. According to Section 17.116.105, any multifamily residential facilities between five and 49 dwelling units are not required to provide care-share parking spaces. Residential developments between 50 and 200 units must provide one car-share parking space and developments between 201 and 400 units must provide two car-share parking spaces. All car-share parking spaces are counted toward the minimum and maximum required parking spaces described above.

City Code requires the Project to provide two car-share parking spaces for Building A, one car-share parking space for Building B, and one car-share parking space for Building D. The Project satisfies this requirement by providing three car-share spaces in Building A, which would also be accessible to Building B residents, and one car-share space in Building C, which will be accessible to Building C residents.

Off-Street Loading Requirements

The *City of Oakland Municipal Code* sets minimum loading berth requirements. **Table 11** presents the off-street loading requirements for each Project building, per City of Oakland Municipal Code. Building A would exceed the minimum required loading berth, and Buildings C and D would provide the minimum required loading berths. Building B would not provide any off-street loading berths and would not meet the Code requirements. The Project site plan designates a mid-block on-street residential loading zone on Fallon Street for Building B.

> **Recommendation 6:** While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:
>
> - Consider eliminating one of the loading berths in Building A and relocating the remaining loading berth to have access through the main garage driveway to reduce the number of curb-cuts on 9th Street.

On-Street Parking and Curb Use

Most streets in the Project vicinity provide metered parking along both sides of the street. Other parking designations along the Project frontage include:

- East side of Oak Street between 8th and 9th Street is mostly designated for bus and shuttle loading.
- South side of 8th Street between Madison and Oak Streets includes one ADA designated parking space and a commercial loading zone just west of Oak Street.

Table 10: Off-Street Loading Requirements

Land Use	Size[1]	Required Off-Street Loading Berths	Provided Off-Street Loading Berths	Meet Requirement?
BLOCK 1				
Building A				
Residential[2]	203.84 KSF	1		
Retail[4]	4.5 KSF	0		
	Subtotal	**1**	**2**	**Yes**
Building B				
Residential[2]	76.21 KSF	1		
Retail[4]	3.0KSF	0		
	Subtotal	**1**	**0**	**No**
BLOCK 2				
Building C				
Office[5]	495.3 KSF	3		
Retail[4]	11.0 KSF	0		
	Subtotal	**3**	**3**	**Yes**
Building D				
Residential[2]	110.88 KSF	1		
Day-Care[6]	6.2 KSF	0		
	Subtotal	**1**	**01**	**Yes**

Notes:
1. DU = dwelling unit, KSF = 1,000 square feet
2. Off-street loading requirement for residential over 50,000 square feet is one berth (Section 17.116.120).
3. No off-street loading required for office less than 40,000 square feet (Section 17.116.140).
4. No off-street loading required for retail less than 25,000 square feet (Section 17.116.140).
5. Off-street loading requirement for office over 160,000 square feet is three berths (Section 17.116.140).
6. No off-street loading required for day-care (Section 17.116.130).

Source: Fehr & Peers, 2021.

The Access Study conducted an analysis of curb-space needs, including passenger loading, for the BART station and the proposed Project. Accounting for the elimination of the on-site BART parking by the Project, the Access Study anticipated an increase in passenger pick-ups and drop offs for the BART station. Therefore, it recommends converting some of the metered parking spaces along the Project frontages to passenger loading spaces to meet the needs of the BART station as well as the proposed Project.

Consistent with the Access Study, the Project proposes the following curb designation changes:

- Block 1:
  - South side of 9th Street between Oak and Fallon Streets - Replace all metered parking spaces with a passenger loading zone west of the Building A driveway and two ADA-designated passenger loading spaces east of the Building A loading driveway.
  - West side of Fallon Street between 8th and 9th Streets - Replace all metered parking spaces with a passenger loading zone, including a residential loading zone for Building B, and one ADA compliant parking space.
  - North side of 8th Street between Oak and Fallon Streets - Replace metered parking spaces with a shuttle/bus loading zone, an ADA shuttle loading zone, and two ADA loading spaces.
  - East side of Oak Street between 8th and 9th Streets – Eliminate the existing metered parking spaces and designate the entire block face as bus and shuttle loading zone.
- Block 2:
  - South side of 8th Street between Madison and Oak Streets - Replace all curb space with a passenger loading zone, an ADA-designated passenger loading space, and an ADA-designated parking space. The ADA spaces would be located midblock in front of the main entrance of Building D.
  - West side of Oak Street between 7th and 8th Streets – in the short-term, retain all existing on-street parking meters. In the long-term, the parking lane will be replaced with a two-way separated bikeway as part of the Oakland-Alameda Access Project.
  - North side of 7th Street between Madison and Oak Streets - Remove all on-street parking.
  - Madison Street between 7th and 8th Streets - Replace all metered parking except the two southmost spaces with a passenger loading zone and one ADA-designated passenger loading space.

5. Intersection Operations

Intersection operations under Existing Conditions and Existing Plus Project conditions were analyzed for the ten study intersections. The traffic volumes, intersection lane configurations, and traffic controls presented on **Figure 3** form the basis for the intersection level of service (LOS) analysis under Existing Conditions.[1] The Project trip assignment was added to the Existing

[1] The operations of roadway facilities are typically described with the term level of service (LOS), a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, which reflects free-flow conditions where there is very little interaction between vehicles, to LOS F, where the vehicle demand exceeds the capacity and high levels of vehicle delay result. LOS E represents "at-capacity" operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result and a vehicle may wait through multiple signal cycles before passing through the intersection; these operations are designated as LOS F.

Conditions peak hour traffic volumes to estimate the Existing plus Project[2] peak hour traffic volumes, shown on **Figure 4**.

The Existing Plus Project analysis accounts for the following modifications to the streets as proposed by the Project:

- 9th Street/Oak Street intersection (#1):
  - Eliminate one through lane on the eastbound 9th Street approach
- 9th Street/Fallon Street intersection (#2):
  - Eliminate one left-turn lane on the eastbound 9th Street approach
- 8th Street/Oak Street intersection (#5):
  - Eliminate one through lane on the westbound 8th Street approach
- 7th Street/Oak Street intersection (#9):
  - Eliminate one through lane on the eastbound 7th Street approach

The Existing Plus Project analysis also accounts for the following improvements recommended in this memorandum:

- 9th Street/Oak Street intersection (#1):
  - Modify the signal equipment and timings at the intersection to provide a westbound bicycle phase (Recommendation 2)
- 8th Street/Fallon Street intersection (#6):
  - Eliminate one left-turn lane on the northbound Fallon Street approach (Recommendation 4)

Table 11 summarizes the results of the intersection operations analysis under Existing Conditions and Existing Plus Project conditions. **Appendix C** provides the detailed intersection LOS calculation worksheets. All study intersections operate at LOS C or better during both AM and PM peak hours under Existing Conditions. Although the traffic generated by the Project combined with the intersection modifications assumed in the analysis would increase the delay at all intersections, the study intersections are expected to continue to operate at LOS C or better under Existing Plus Project conditions. If one or more of the Access Study recommendations listed above at the study intersections are not implemented, the intersections would operate with less delay and better LOS; thus, this intersection operations analysis is conservative in that it assumes the worst-case configurations for the analysis.

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[2] The Existing Plus Project analysis was completed for a slightly larger Project which generated about 10 percent more trips than the Project described earlier in this memorandum. Thus, the results presented in this section are slightly worse than expected.

Table 11: Intersection LOS Summary

Intersection	Traffic Control[1]	Peak Hour	Existing		Exiting Plus Project	
			Delay[2] (seconds)	LOS[2]	Delay[2] (seconds)	LOS[2]
1. 9th Street/Oak Street	Signalized	AM PM	11 13	B B	11 14	B B
2. 9th Street/Fallon Street	AWSC	AM PM	8 9	A A	9 11	A B
3. 8th Street/Jackson Street[3]	Signalized	AM PM	17 27	B C	19 26	B C
4. 8th Street/Madison Street	Signalized	AM PM	17 15	B B	23 21	C C
5. 8th Street/Oak Street	Signalized	AM PM	14 13	B B	17 15	B B
6. 8th Street/Fallon Street	Unsignalized	AM PM	0 0	A A	0 0	A A
7. 7th Street/Jackson Street[3]	Signalized	AM PM	14 14	B B	15 20	B C
8. 7th Street/Madison Street	Signalized	AM PM	19 20	B B	19 20	B C
9. 7th Street/Oak Street	Signalized	AM PM	15 20	B C	16 27	B C
10. 7th Street/Fallon Street[3]	Signalized	AM PM	17 27	B C	18 33	B C

Notes
1. AWSC = All-Way Stop-Controlled
2. Average intersection delay and LOS based on the 2010 HCM method except where noted. Average delay intersection delay is reported for all intersections.
3. Average intersection delay and LOS based on HCM 2000 because the intersection cannot be accurately evaluated in the 2010 HCM.

Source: Fehr & Peers, 2021.

6. Collision Analysis

A five-year history (January 1, 2013 to December 31, 2017) of collision data in the study area was obtained from the Statewide Integrated Traffic Records System (SWITRS) and evaluated for this collision analysis. **Table 12** summarizes the collision data by type and location, and **Table 13** summarizes the collision data by severity and location.

As shown in Table 12, 139 collisions were reported at the study locations during this five-year period. The most common collision type was broadside (63 percent), and the most frequent primary collision factor violation category was traffic signal/sign violation (60 percent). Pedestrians were involved in 18 (13 percent) of the reported collisions and bicyclists were involved in four (three percent). Of the 139 reported collisions, 69 (50 percent) resulted in injuries, and none resulted in fatalities.

The Highway Safety Manual (HSM, Predictive Method - Volume 2, Part C) provides a methodology to predict the number of collisions for intersections and street segments based on roadway and intersection characteristics like vehicle and pedestrian volumes, number of lanes, signal phasing, on-street parking, and number of driveways. **Table 14** presents the predicted collision frequencies for the ten study intersections and the eight study segments using the HSM Predictive Method for Urban and Suburban Arterials and compares predicted collision frequencies to reported collision frequencies. **Appendix D** provides the detailed HSM predicted collision frequency calculation sheets. Intersections or roadway segments with collision frequency greater than the predicted frequency should have their collision trends and potential roadway or intersection modifications evaluated in greater detail.

As shown in Table 14, four study intersections had actual collision frequencies higher than predicted by the HSM Predictive Method. At all four of these intersections, most reported collisions involved drivers failing to stop at the red light (67 percent at 8th Street/ Jackson Street, 65 percent at 8th Street/Madison Street, 78 percent at 8th Street/Oak Street, and 63 percent at 7th Street Madison Street).

Each of the four intersections with collision frequencies higher than predicted underwent significant changes in 2019, including the following:

- Installation of additional overhead signal heads
- Improved street lighting
- Reduction in the number of through lanes at select approaches
- Installation of painted curb extensions with bollards at all four corners (The Project would replace the painted curb extensions with concrete bulb-outs at the corners adjacent to the Project)
- Replacement of all standard crosswalk markings with high-visibility markings
- Installation of bicycle intersection crossing markings

Table 12: Summary of Collisions by Type

Location	Head-on	Sideswipe	Rear-End	Broadside	Hit Object	Pedestrian-Involved	Bicycle-Involved	Other	Total
Intersection									
9th Street/Oak Street	0	1	0	2	1	0	0	0	**4**
9th Street/Fallon Street	0	0	0	0	0	0	0	0	**0**
8th Street/Jackson Street	1	0	0	13	0	4	0	0	**18**
8th Street/Madison Street	1	4	2	16	0	3	0	0	**26**
8th Street/Oak Street	2	3	0	14	1	0	1	1	**22**
8th Street/Fallon Street	0	0	0	0	0	0	0	0	**0**
7th Street/Jackson Street	0	2	2	9	0	2	2	0	**17**
7th Street/Madison Street	0	6	1	22	0	2	1	0	**32**
7th Street/Oak Street	0	1	0	9	0	1	0	0	**11**
7th Street/Fallon Street	3	0	1	3	1	0	0	0	**8**
Roadway Segment									
Oak Street (between 8th and 9th Streets)	0	0	0	0	0	0	0	0	**0**
Fallon Street (between 8th and 9th Streets)	0	0	0	0	0	0	0	0	**0**
9th Street (between Oak and Fallon Streets)	0	0	0	0	0	0	0	0	**0**
8th Street (between Oak and Fallon Streets)	0	0	0	0	0	0	0	0	**0**
Madison Street (between 7th and 8th Streets)	0	0	0	0	0	0	0	0	**0**

Table 12: Summary of Collisions by Type

Location	Head-on	Sideswipe	Rear-End	Broadside	Hit Object	Pedestrian-Involved	Bicycle-Involved	Other	Total
Oak Street (between 7th and 8th Streets)	0	0	0	0	0	0	0	0	**0**
8th Street (between Madison and Oak Streets)	0	0	0	0	0	1	0	0	**1**
7th Street (between Madison and Oak Streets)	0	0	0	0	0	0	0	0	**0**
Total (Intersections and Segments)	**7**	**17**	**6**	**88**	**3**	**13**	**4**	**1**	**139**

Notes:

1. Based on SWITRS five-year collision data reported from January 1, 2013 to December 31, 2017.

Source: SWITRS, Fehr & Peers, 2021.

Table 13: Summary of Collision Severity

Location	Property Damage Only	Injury Collisions	Fatality Collisions	Total	Person-Injuries			
					Bike	Ped	Driver/ Passenger	Total
Intersection								
9th Street/Oak Street	4	0	0	**4**	0	0	4	**4**
9th Street/Fallon Street	0	0	0	**0**	0	0	0	**0**
8th Street/Jackson Street	8	10	0	**18**	0	4	17	**21**
8th Street/Madison Street	10	16	0	**26**	0	5	22	**27**
8th Street/Oak Street	13	9	0	**22**	1	0	22	**23**
8th Street/Fallon Street	0	0	0	**0**	0	0	0	**0**
7th Street/Jackson Street	7	10	0	**17**	2	3	11	**16**
7th Street/Madison Street	17	15	0	**32**	1	1	35	**37**
7th Street/Oak Street	7	4	0	**11**	0	2	7	**9**
7th Street/Fallon Street	4	4	0	**8**	0	0	11	**11**
Roadway Segment								
Oak Street (between 8th and 9th Streets)	0	0	0	**0**	0	0	0	**0**
Fallon Street (between 8th and 9th Streets)	0	0	0	**0**	0	0	0	**0**
9th Street (between Oak and Fallon Streets)	0	0	0	**0**	0	0	0	**0**
8th Street (between Oak and Fallon Streets)	0	0	0	**0**	0	0	0	**0**
Madison Street (between 7th and 8th Streets)	0	0	0	**0**	0	0	0	**0**

Table 13: Summary of Collision Severity

Location	Property Damage Only	Injury Collisions	Fatality Collisions	Total	Person-Injuries			
					Bike	Ped	Driver/ Passenger	Total
Oak Street (between 7th and 8th Streets)	0	0	0	**0**	0	0	0	**0**
8th Street (between Madison and Oak Streets)	0	1	0	**1**	0	1	0	**1**
7th Street (between Madison and Oak Streets)	0	0	0	**0**	0	0	0	**0**
Total (Intersections and Segments)	**70**	**69**	**0**	**139**	**4**	**16**	**129**	**149**

Notes:

1. Based on SWITRS five-year collision data reported from January 1, 2013 to December 31, 2017.

Source: SWITRS, Fehr & Peers, 2021.

Table 14: Predicted and Actual Collision Frequencies

Location	Predicted Collision Frequency[1] (per year)	Actual Collision Frequency[2] (per year)	Difference	Higher than Predicted?
Intersection				
9th Street/Oak Street[3]	2.0	0.8	-1.2	*No*
9th Street/Fallon Street	N/A	0.0	N/A	*No*
8th Street/Jackson Street[3]	2.3	3.6	+1.3	***Yes***
8th Street/Madison Street[3]	2.7	5.2	+2.5	***Yes***
8th Street/Oak Street[3]	3.5	4.4	+0.9	***Yes***
8th Street/Fallon Street	N/A	0.0	N/A	*No*
7th Street/Jackson Street[3]	4.7	3.4	-1.3	*No*
7th Street/Madison Street[3]	5.1	6.4	+1.3	***Yes***
7th Street/Oak Street[3]	5.2	2.2	-3.0	*No*
7th Street/Fallon Street	2.8	1.6	-1.2	*No*
Roadway Segment				
Oak Street (between 8th and 9th Streets)	N/A	0.0	N/A	*No*
Fallon Street (between 8th and 9th Streets)	N/A	0.0	N/A	*No*
9th Street (between Oak and Fallon Streets)	N/A	0.0	N/A	*No*
8th Street (between Oak and Fallon Streets)	N/A	0.0	N/A	*No*
Madison Street (between 7th and 8th Streets)	N/A	0.0	N/A	*No*
Oak Street (between 7th and 8th Streets)	N/A	0.0	N/A	*No*
8th Street (between Madison and Oak Streets)[3]	0.4	0.2	-0.2	*No*
7th Street (between Madison and Oak Streets)	N/A	0.0	N/A	*No*

Notes:

1. Based on the Highway Safety Manual Predictive Method (Volume 2, Part C)
2. Based on five-year collision data reported from January 1, 2013 to December 31, 2017.
3. The HSM Predictive Method does not directly account for one-way roadway segments or intersections with one-way approaches. In this analysis, one-way crash frequencies on roadway segments are approximated to be equal to half of the crash frequency of a two-way divided road segment with double the one-way traffic volumes. Crash frequencies for intersections with one-way approaches are calculated as if the approaches are two-way.

Source: Fehr & Peers, 2021

Comprehensive collision data after the implementation of the above improvements is not available. Considering the types of the reported collisions, the implementation of the recent improvements is anticipated to increase the visibility of the traffic signals, increase the visibility of pedestrians and bicyclists, and reduce motor vehicle speeds, which are expected to reduce the collision rates at the four intersections with high collision rates. Thus, no additional modifications related to roadway safety beyond the ones previously provided in this memorandum are recommended.

7. Conclusion and Summary of Recommendations

Based on our review of the Project site plan and conditions on the surrounding streets, the Project would have adequate automobile, bicycle, pedestrian, and transit access and circulation with the inclusion of the following recommendations:

Recommendation 1: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Ensure adequate sight distance between exiting vehicles and pedestrians on the adjacent sidewalk at the Building A driveway on 9th Street and the Building C and Building D driveways on 7th Street. If adequate sight distance cannot be achieved, provide audio and visual warning devices at the driveway and/or provide three-foot low landscaping buffer along the building edge adjacent to the driveways.
- Consider extending the Buildings C and D curb-cut to the west to widen the curb-cut to 27-feet to allow incoming and outgoing vehicles to utilize the driveways simultaneously.
- Study the turning movements for larger trucks (such as WB-40) maneuvering into and out of the Building A loading docks on 9th Street and the Building C loading docks on 7th Street to ensure adequate truck access.
- Consider redesigning the Building C garage to provide adequate circulation for vehicles and to allow two vehicles to simultaneously enter and exit the internal garage ramps. If the Building C garage cannot be redesigned, install mirrors at the bottom and top of each internal ramp to improve visibility.

Recommendation 2: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- 9th Street/Oak Street - Replace existing signals with new mast arms and signal heads to provide signal head for the westbound 9th Street bike approach.

Recommendation 3: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Ensure that at least two of the short-term bicycle parking spaces near the Building D day-care are cargo-bike accessible to facilitate day-care pick-ups and drop offs.
- Ensure the bike parking in the sidewalks, fronting all streets in the Project vicinity do not conflict with the minimum pedestrian clear width areas or do not conflict with the minimum of 48-inch clear distance at the curb to ensure access from the accessible passenger loading zones or parking spaces to the sidewalk.

Recommendation 4: While not required to address a CEQA impact, the following improvements shall be implemented by the Project at the discretion of City staff for at least the intersection corners along the Project frontages and the receiving corners, and preferably for the entire intersection, unless noted otherwise:

- 9th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, pedestrian countdown signal heads, high-visibility crosswalk markings, leading pedestrian intervals, and advance stop bars.
- 9th Street/Fallon Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars on the west and south approaches of the intersection. In addition, consider installing a raised intersection or a raised crosswalk on the south side of the intersection.
- 8th Street/Madison Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps and leading pedestrian intervals.
- 8th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps and leading pedestrian intervals.
- 8th Street/Fallon Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars. Eliminate one of the two left-turn lanes on the northbound Fallon Street approach.
- 7th Street/Madison Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, and leading pedestrian intervals.
- 9th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, accessible pedestrian signals, pedestrian countdown signal heads, high-visibility crosswalk markings, leading pedestrian intervals, and advance stop bars.

Recommendation 5: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- If feasible, subject to additional approval by BART, replace the existing concrete canopy with ADA-accessible bus shelters near the curb at each bus stop on the east side of Oak Street between 8th and 9th Streets.

Recommendation 6: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Consider eliminating one of the loading berths in Building A and relocating the remaining loading berth to have access through the main garage driveway to reduce the number of curb-cuts on 9th Street.

Please contact Sam Tabibnia (stabibnia@fehrandpeers.com or 510-835-1943) with questions or comments.

ATTACHMENTS

Figure 1 – Project Vehicle Trip Distribution

Figure 2 – PM Peak Hour Project Trip Assignment

Figure 3 – Existing Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls

Figure 4 – Existing Plus Project Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls

Appendix A – AutoTurn Evaluation of Project Parking Garages

Appendix B – Lake Merritt BART Access Study Recommendations

Appendix C – Study Intersection LOS Reports

Appendix D – Predicted Collision Frequency

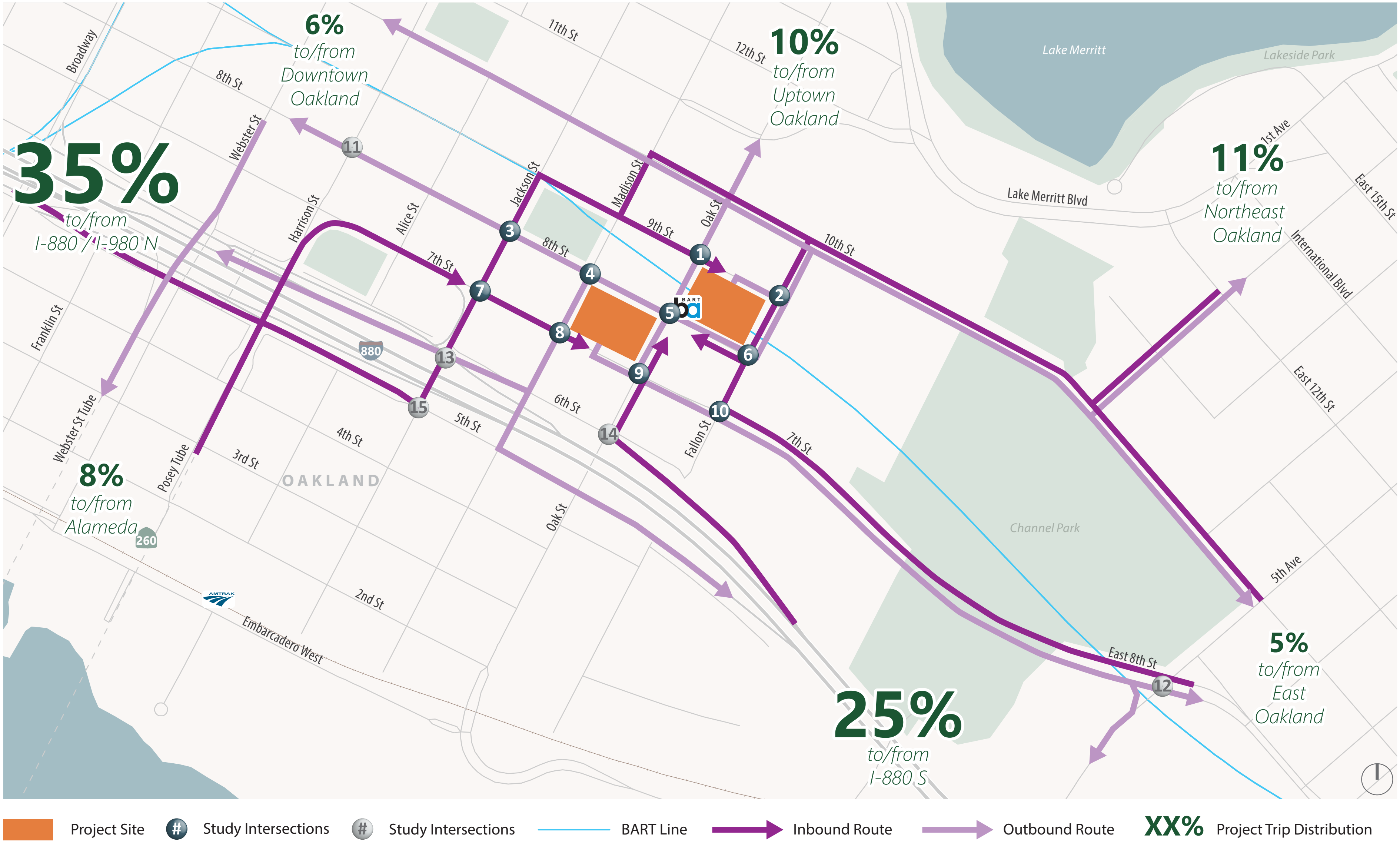


Figure 1

Project Vehicle Trip Distribution

OK19-0339_1_TripDistro

Project Site
Study Intersections
Study Intersections
BART Line
Between 50 and 99 PM Peak Hour Project Trips Added
100 or More PM Peak Hour Project Trips Added

Figure 2

PM Peak Hour Project Trip Assignment

OK19-0339_2_TripAssign

XX (YY) AM (PM) Peak Hour Traffic Volumes | Signalized Intersection | Stop Sign

Project Site | # Study Intersections

Figure 3

Existing Peak Hour
Intersection Volumes, Lane Configurations and Traffic Controls

OK19-0339_X_Volumes

XX (YY) AM (PM) Peak Hour Traffic Volumes

Signalized Intersection

Stop Sign

Project Site

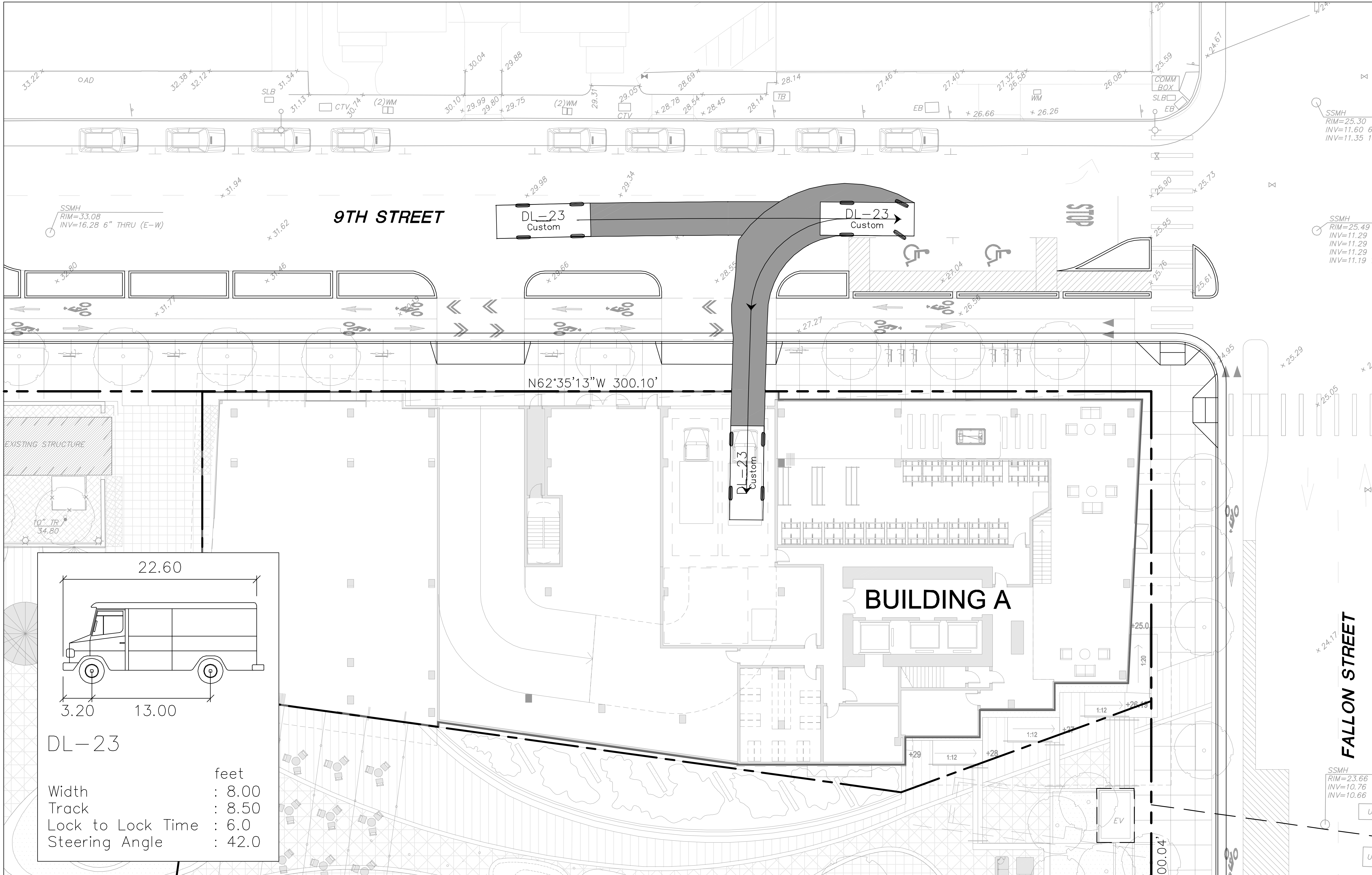
Study Intersections

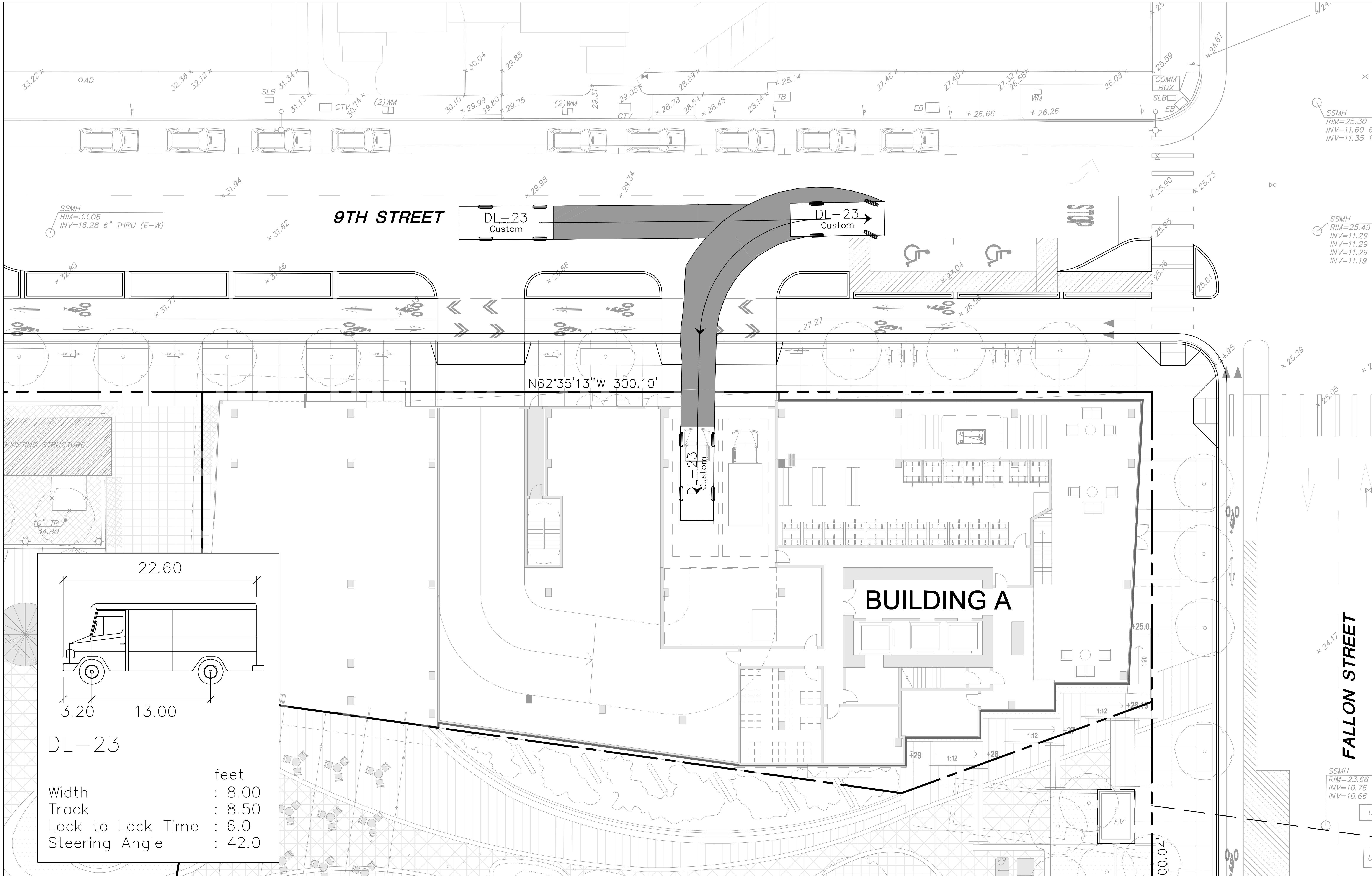
Figure 4

Existing Plus Project Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls

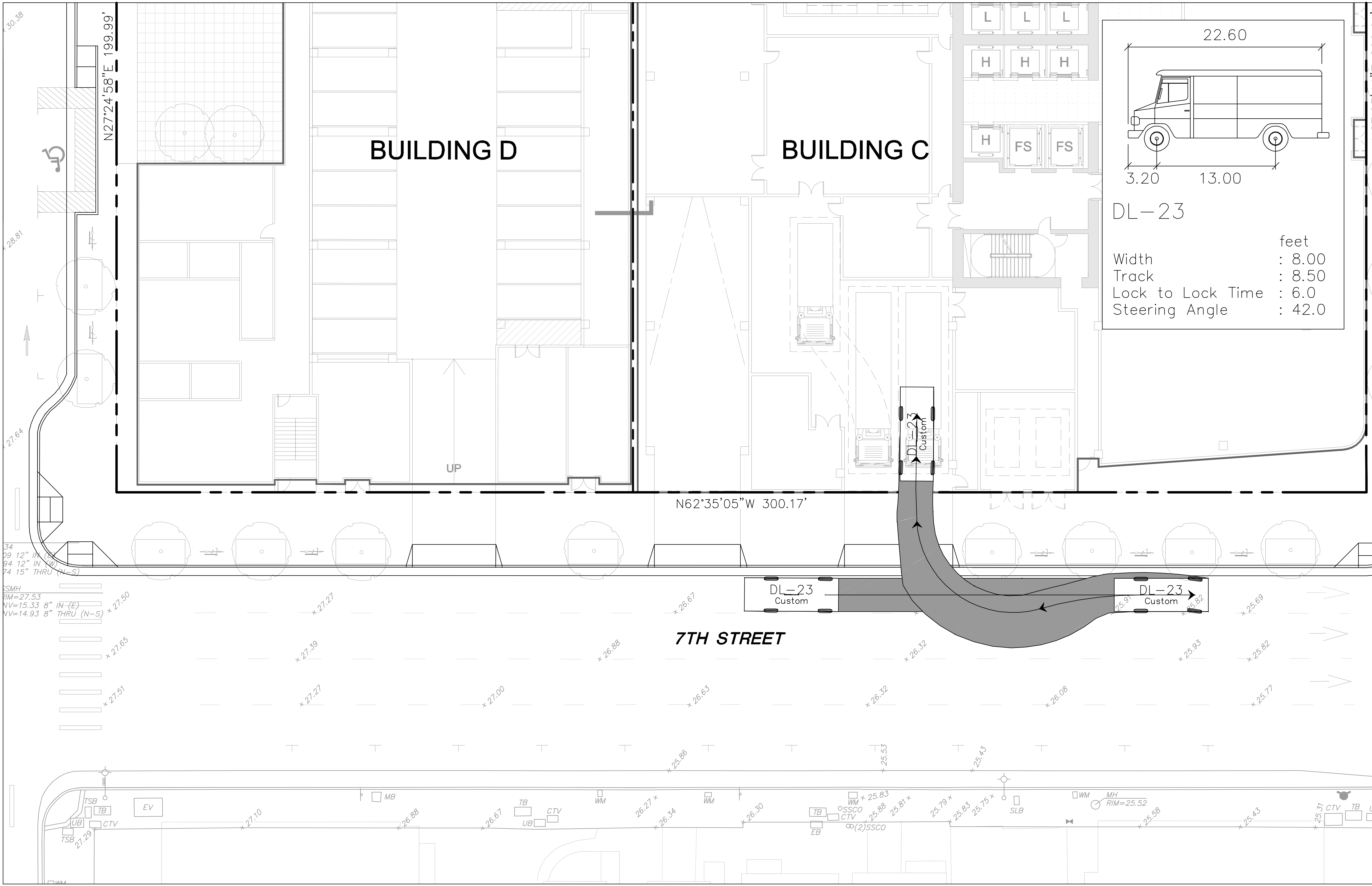
OK19-0339_X_Volumes

APPENDIX A:
AutoTurn Evaluation of Project Parking Garages

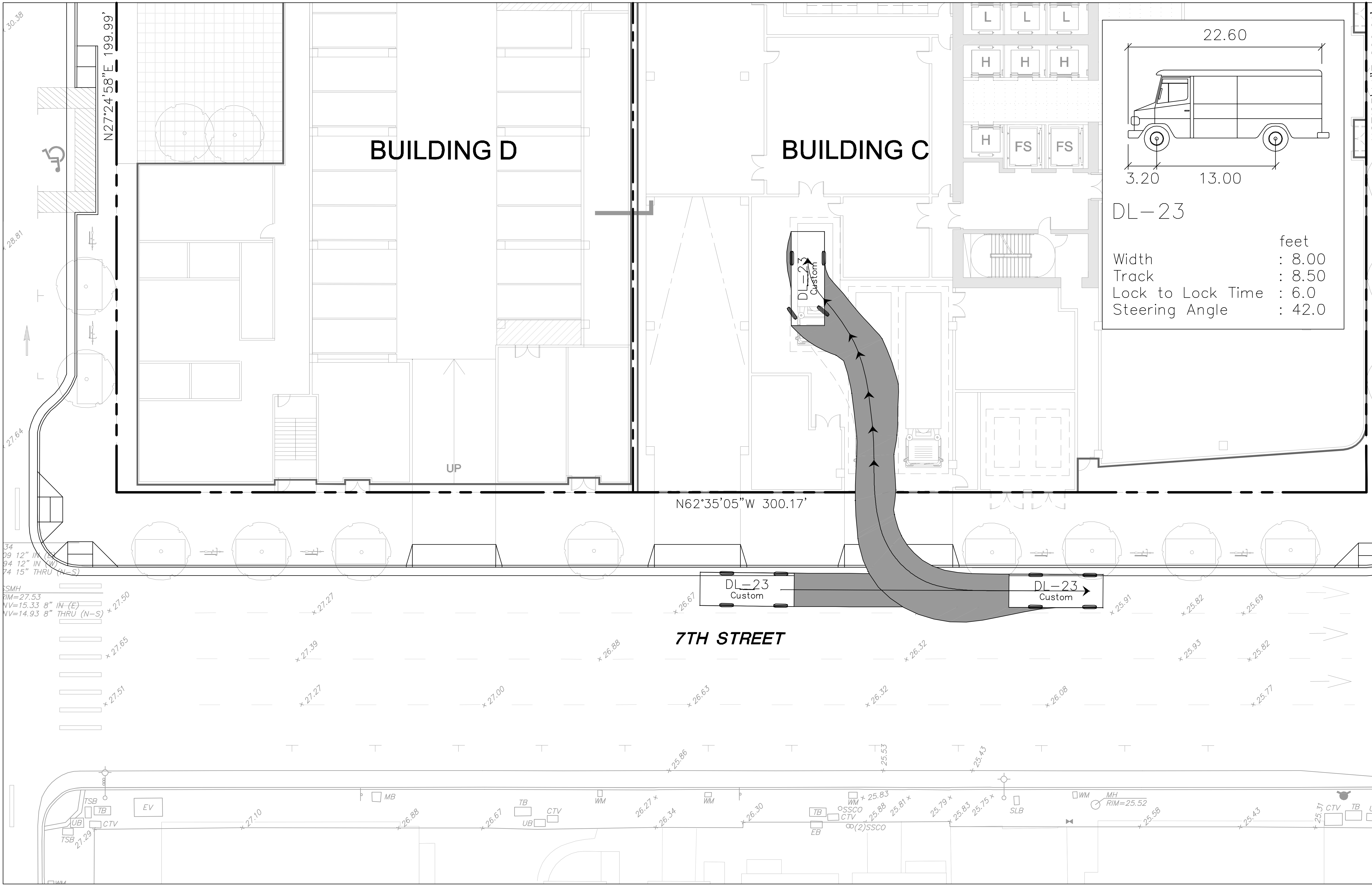

9TH STREET
FALLON STREET
BUILDING A
DL-23
Custom
N62°35'13"W 300.10'
200.04'
EXISTING STRUCTURE
SSMH
RIM=33.08
INV=16.28 6" THRU (E-W)
SSMH
RIM=25.30
INV=11.60 6"
INV=11.35 15"
SSMH
RIM=25.49
SSMH
RIM=23.66
INV=10.76 15"
INV=10.66 15"
COMM BOX
EV
22.60
3.20
13.00
DL-23
feet
Width : 8.00
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 42.0

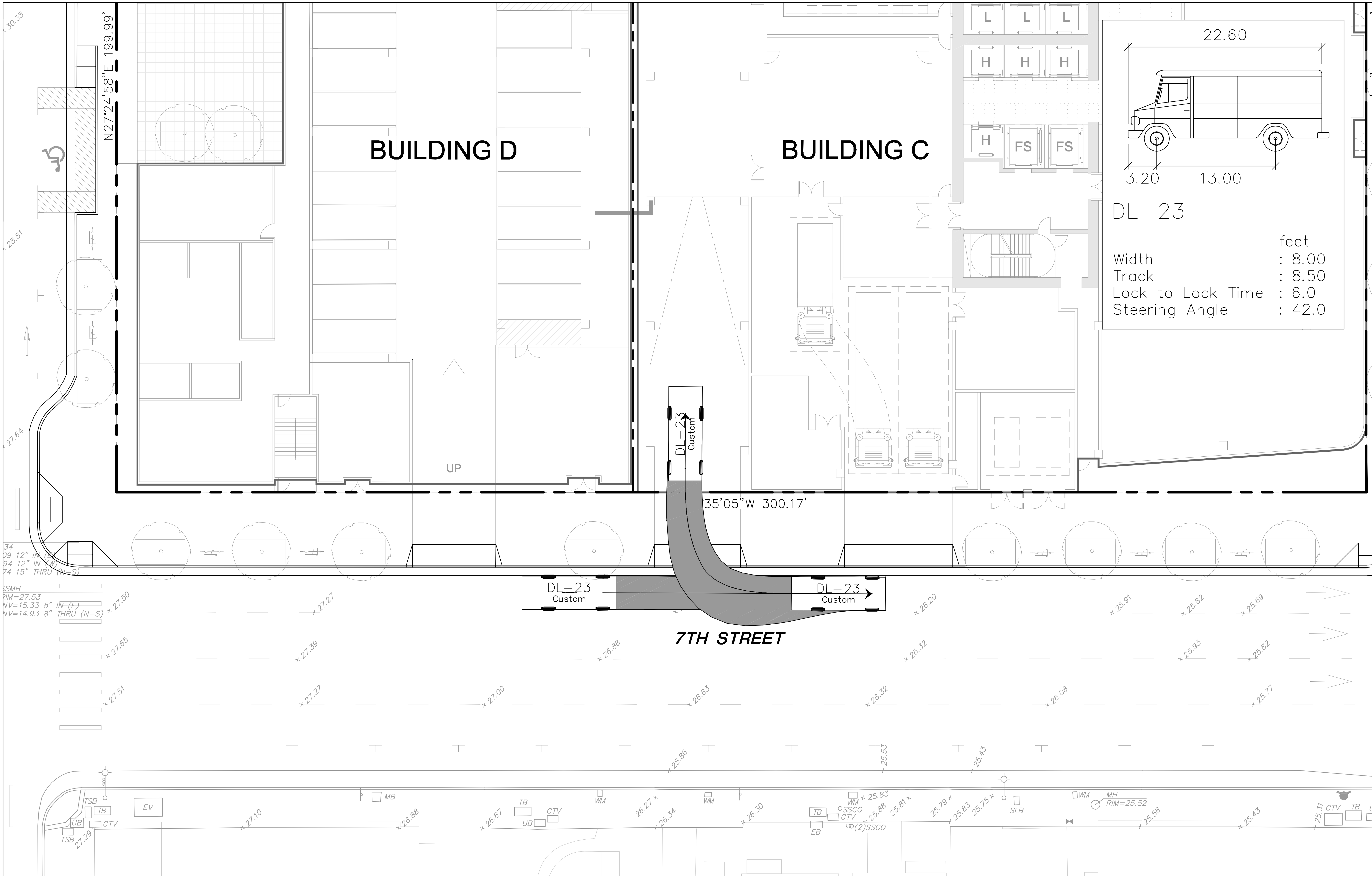


9TH STREET
DL-23
Custom
N62°35'13"W 300.10'
BUILDING A
FALLON STREET
EXISTING STRUCTURE
STOP
SSMH
RIM=33.08
INV=16.28 6" THRU (E-W)
SSMH
RIM=25.30
INV=11.60 6"
INV=11.35 15"
SSMH
RIM=25.49
INV=11.29 12"
INV=11.29 12"
INV=11.29 15"
INV=11.19 15"
SSMH
RIM=23.66
INV=10.76 15"
INV=10.66 15"
COMM BOX
SLB
EB
EV
UB
200.04'
22.60
3.20
13.00
DL-23
feet
Width : 8.00
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 42.0

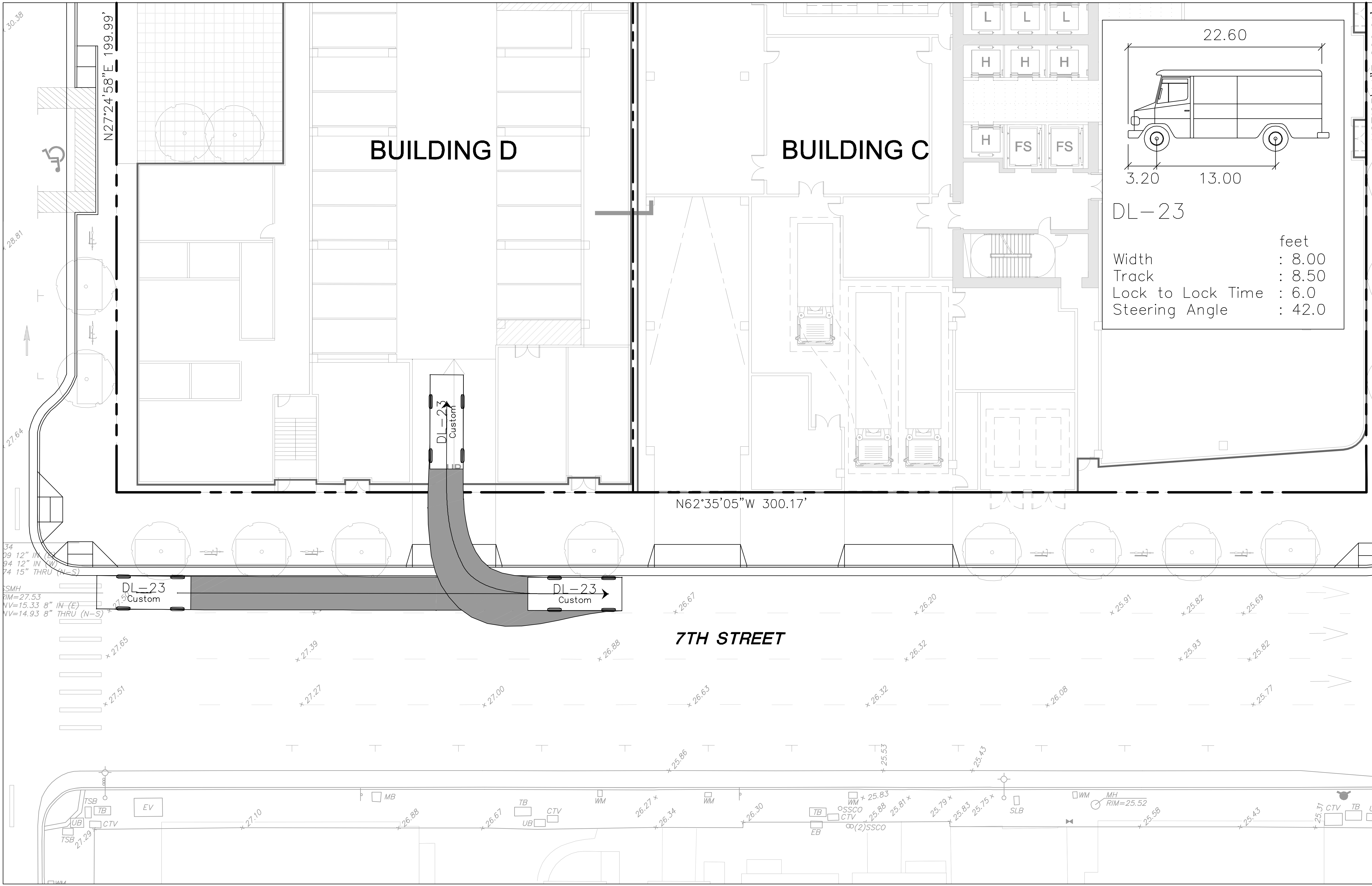


BUILDING D
BUILDING C
N27°24'58"E 199.99'
N27°23'44"E 200.01'
N62°35'05"W 300.17'
UP
L
H
FS
22.60
3.20
13.00
DL-23
feet
Width : 8.00
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 42.0
DL-23
Custom
7TH STREET

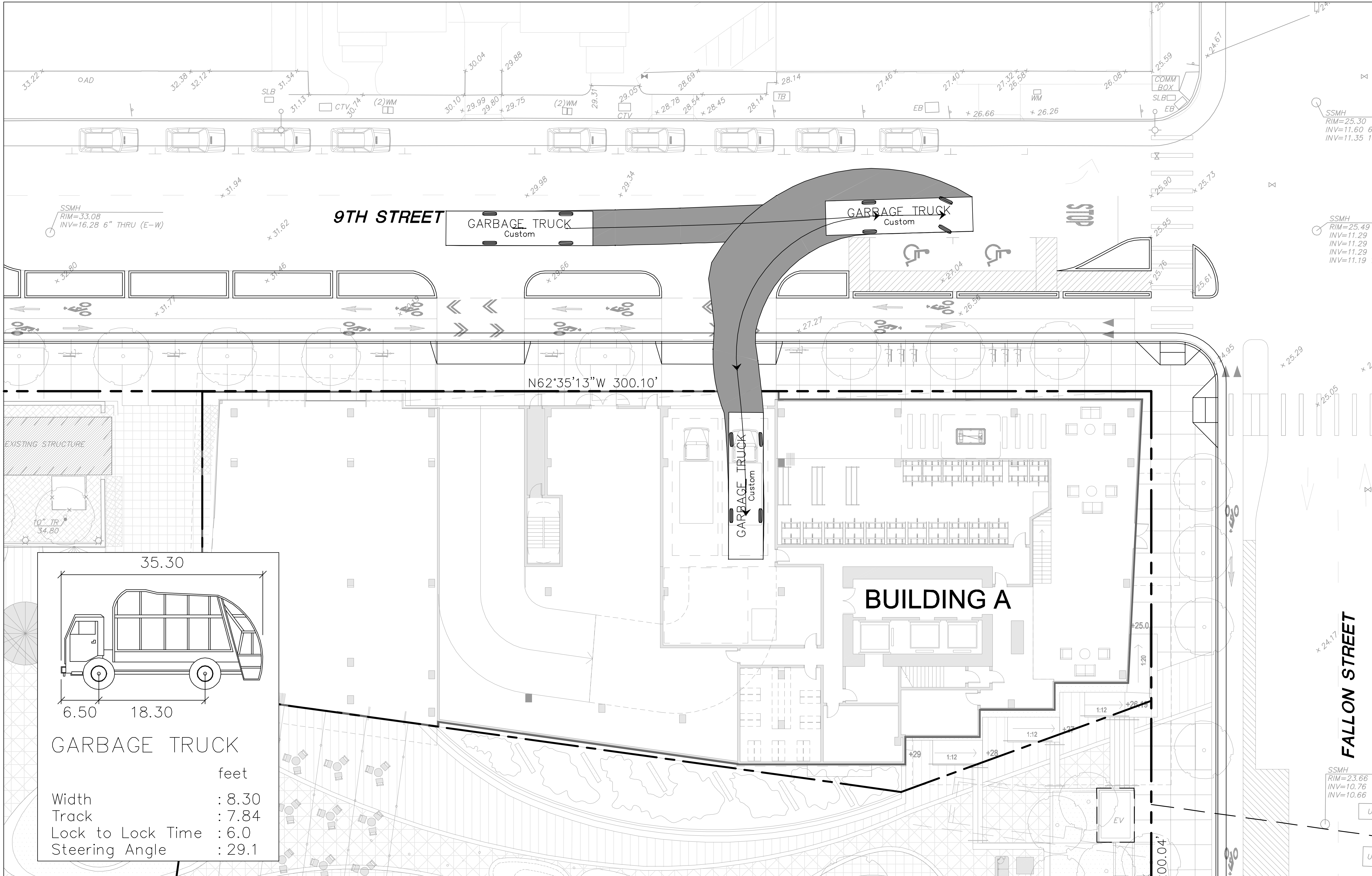

BUILDING D
BUILDING C
N27°24'58"E 199.99'
N27°23'44"E 200.01'
N62°35'05"W 300.17'
UP
L
H
FS
22.60
3.20
13.00
DL-23
feet
Width : 8.00
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 42.0
DL-23 Custom
7TH STREET



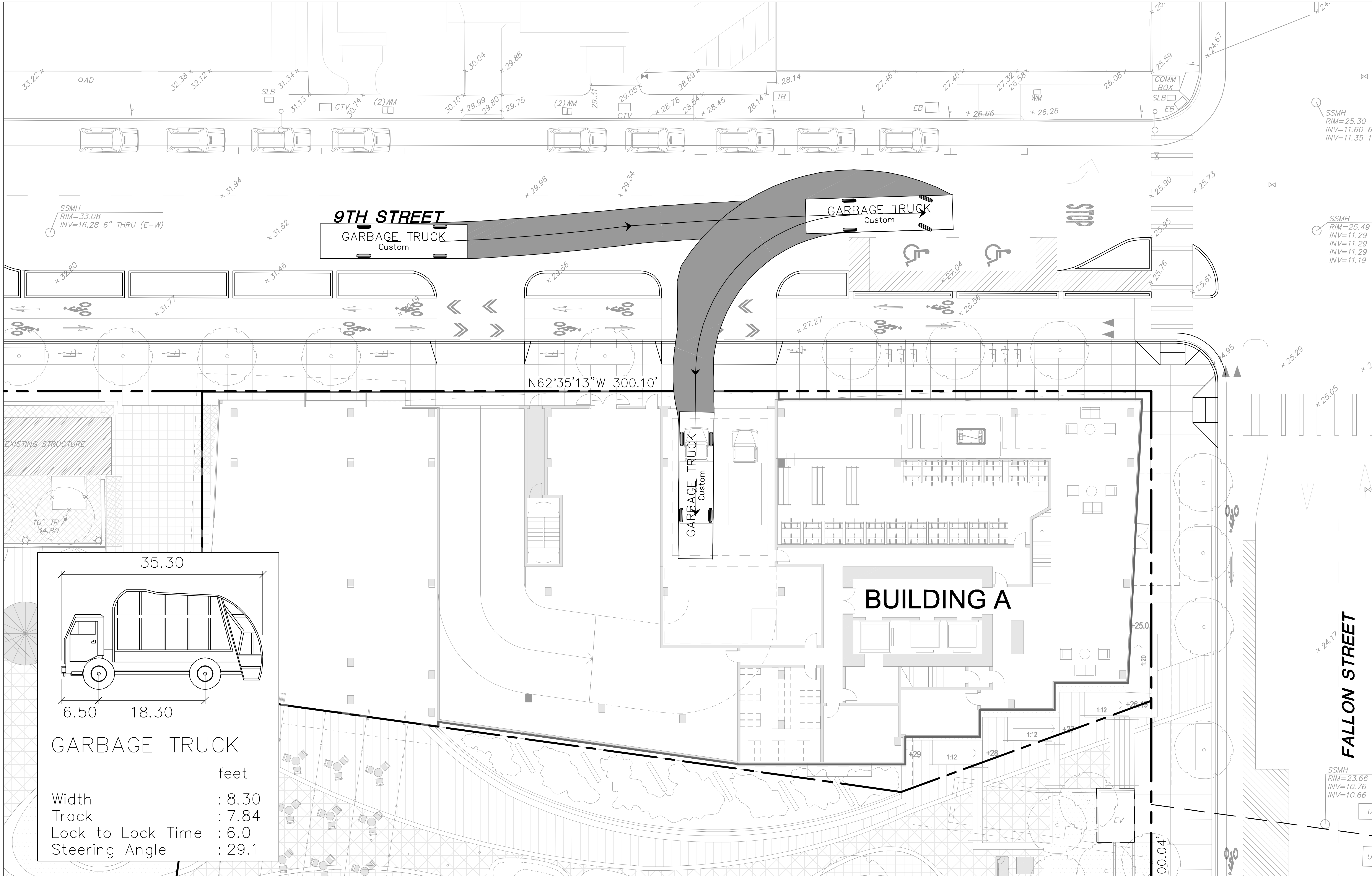
BUILDING D
BUILDING C
7TH STREET
N27°24'58"E 199.99'
N27°23'44"E 200.01'
35'05"W 300.17'
UP
DL–23
Custom
22.60
3.20
13.00
DL–23
feet
Width : 8.00
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 42.0



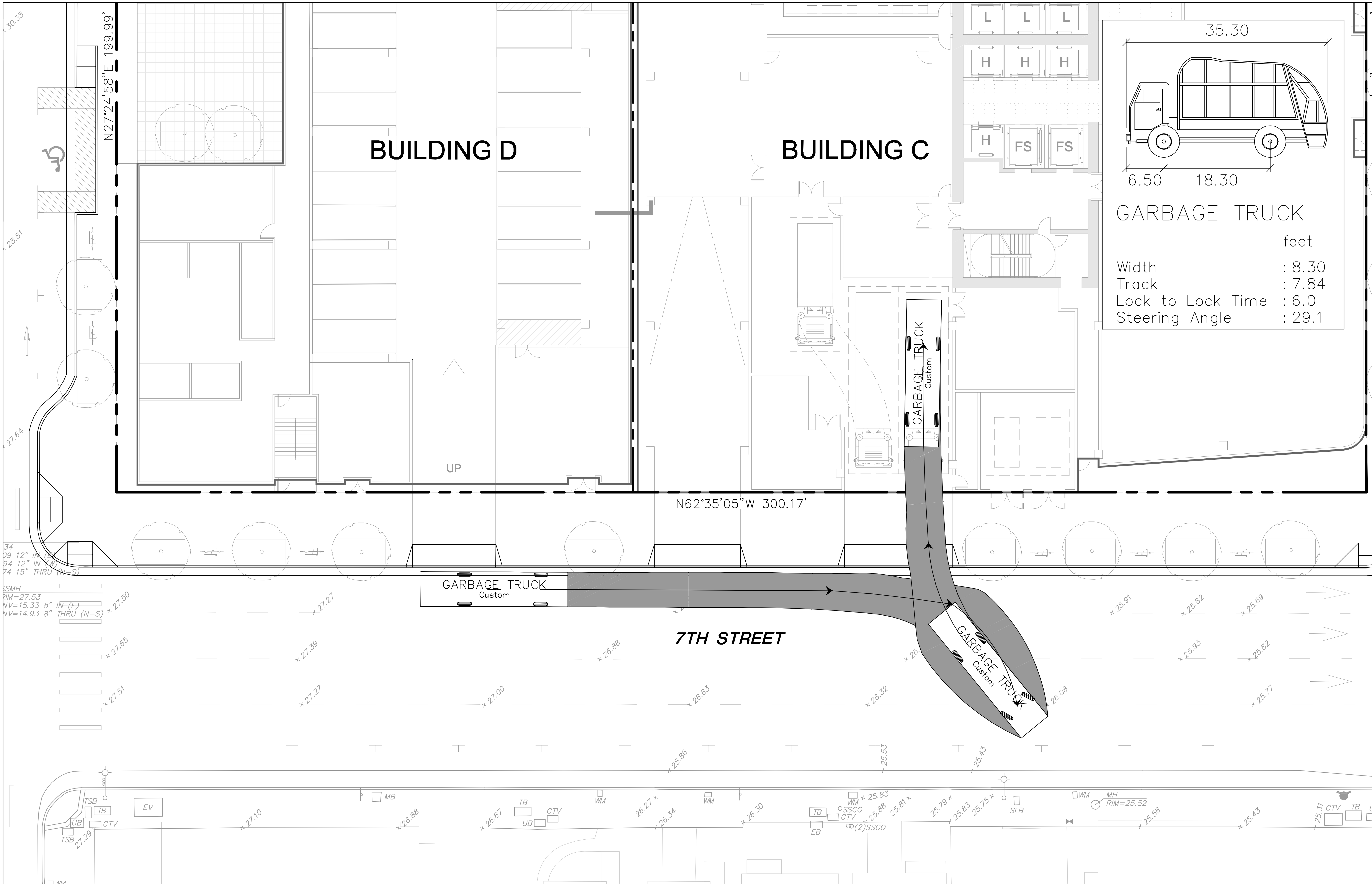
BUILDING D
BUILDING C
7TH STREET
N27°24'58"E 199.99'
N27°23'44"E 200.01'
N62°35'05"W 300.17'
22.60
3.20
13.00
DL-23
feet
Width : 8.00
Track : 8.50
Lock to Lock Time : 6.0
Steering Angle : 42.0
DL-23 Custom



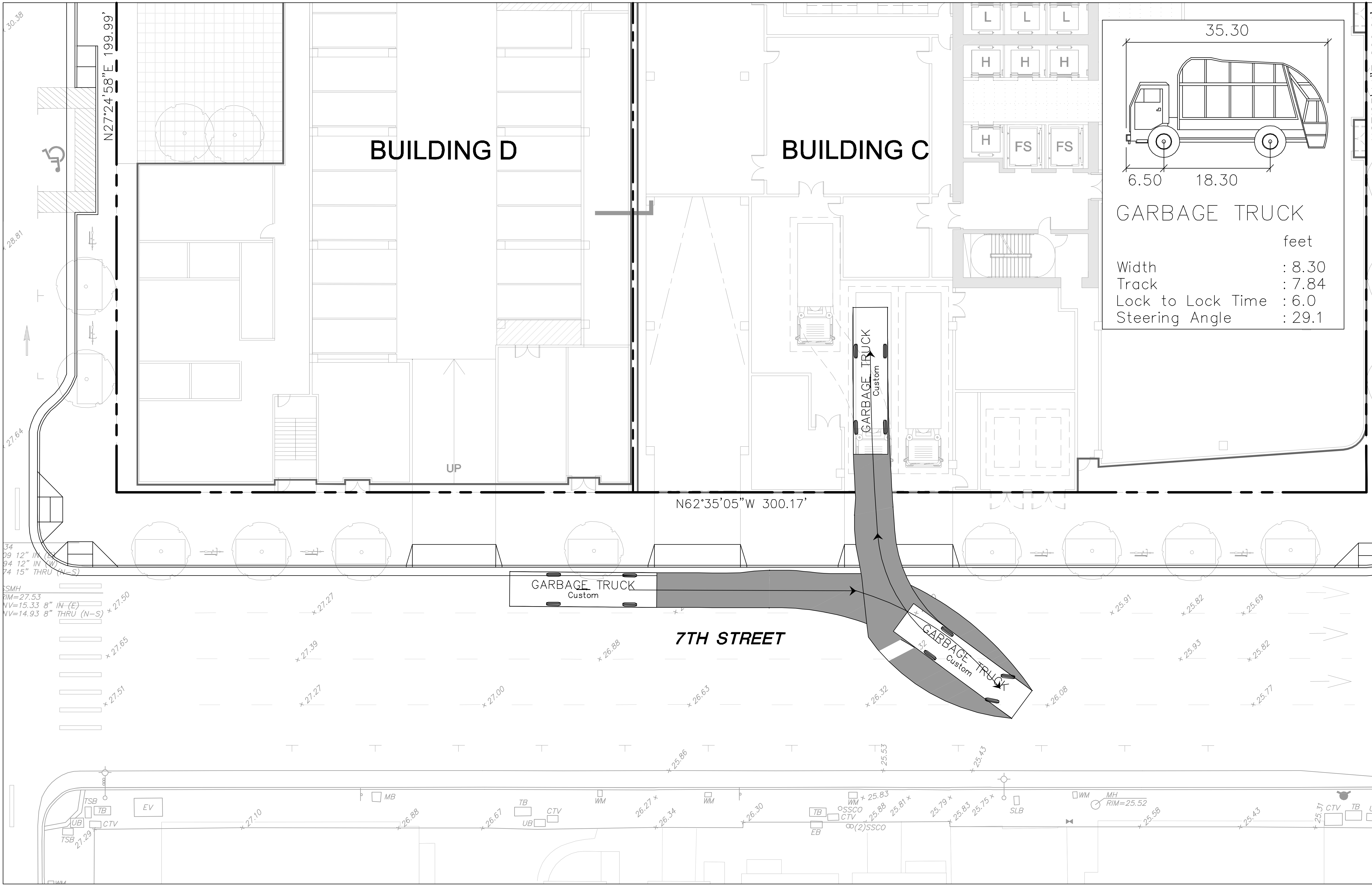
9TH STREET
GARBAGE TRUCK
Custom
N62°35'13"W 300.10'
BUILDING A
FALLON STREET
EXISTING STRUCTURE
SSMH
RIM=33.08
INV=16.28 6" THRU (E-W)
SSMH
RIM=25.30
INV=11.60 6"
INV=11.35 15"
SSMH
RIM=25.49
INV=11.29 12"
INV=11.29 12"
INV=11.29 15"
INV=11.19 15"
SSMH
RIM=23.66
INV=10.76 15"
INV=10.66 15"
STOP
200.04'
EV
35.30
6.50
18.30
GARBAGE TRUCK
feet
Width : 8.30
Track : 7.84
Lock to Lock Time : 6.0
Steering Angle : 29.1



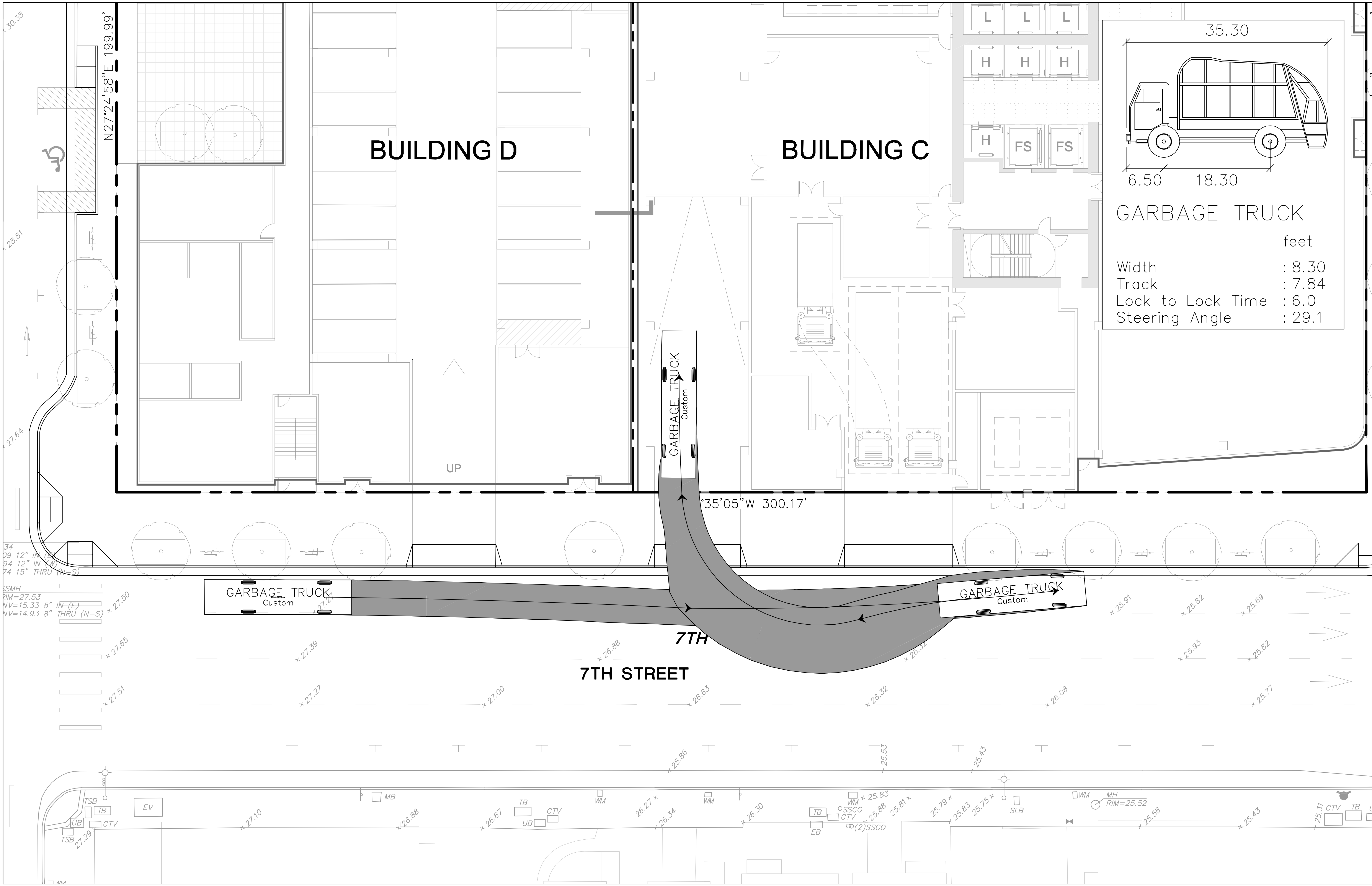
9TH STREET
GARBAGE TRUCK
Custom
N62°35'13"W 300.10'
BUILDING A
FALLON STREET
EXISTING STRUCTURE
SSMH
RIM=33.08
INV=16.28 6" THRU (E-W)
SSMH
RIM=25.30
INV=11.60 6"
INV=11.35 15"
SSMH
RIM=25.49
SSMH
RIM=23.66
INV=10.76 15"
INV=10.66 15"
COMM BOX
STOP
EV
200.04'
35.30
6.50
18.30
GARBAGE TRUCK
feet
Width : 8.30
Track : 7.84
Lock to Lock Time : 6.0
Steering Angle : 29.1

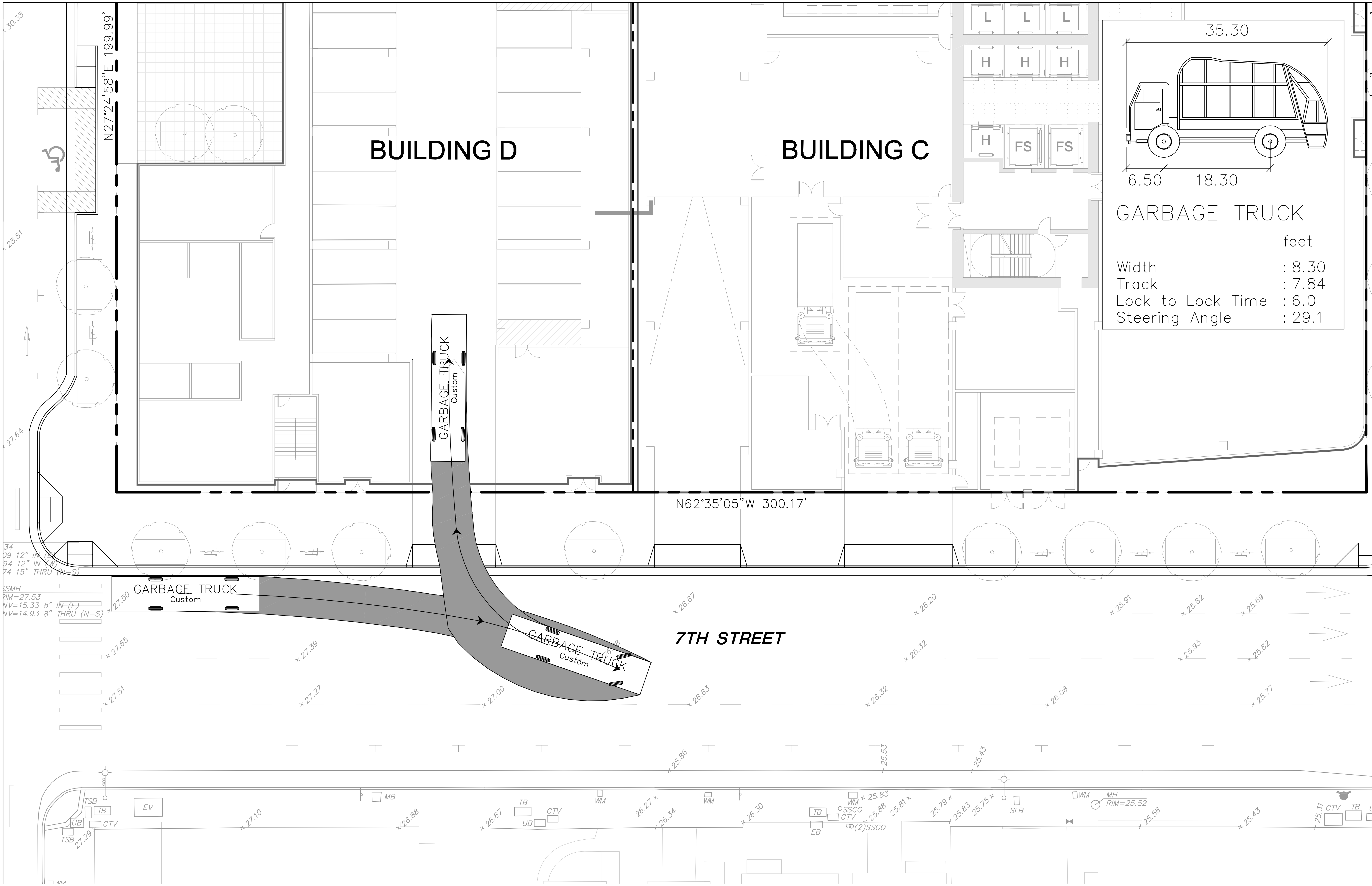


BUILDING D
BUILDING C
GARBAGE TRUCK
feet
35.30
6.50
18.30
Width : 8.30
Track : 7.84
Lock to Lock Time : 6.0
Steering Angle : 29.1
N27°24'58"E 199.99'
N27°23'44"E 200.01'
N62°35'05"W 300.17'
GARBAGE TRUCK Custom
7TH STREET
UP



BUILDING D
BUILDING C
GARBAGE TRUCK
35.30
6.50
18.30
feet
Width : 8.30
Track : 7.84
Lock to Lock Time : 6.0
Steering Angle : 29.1
N27°24'58"E 199.99'
N27°23'44"E 200.01'
N62°35'05"W 300.17'
GARBAGE TRUCK Custom
7TH STREET
UP

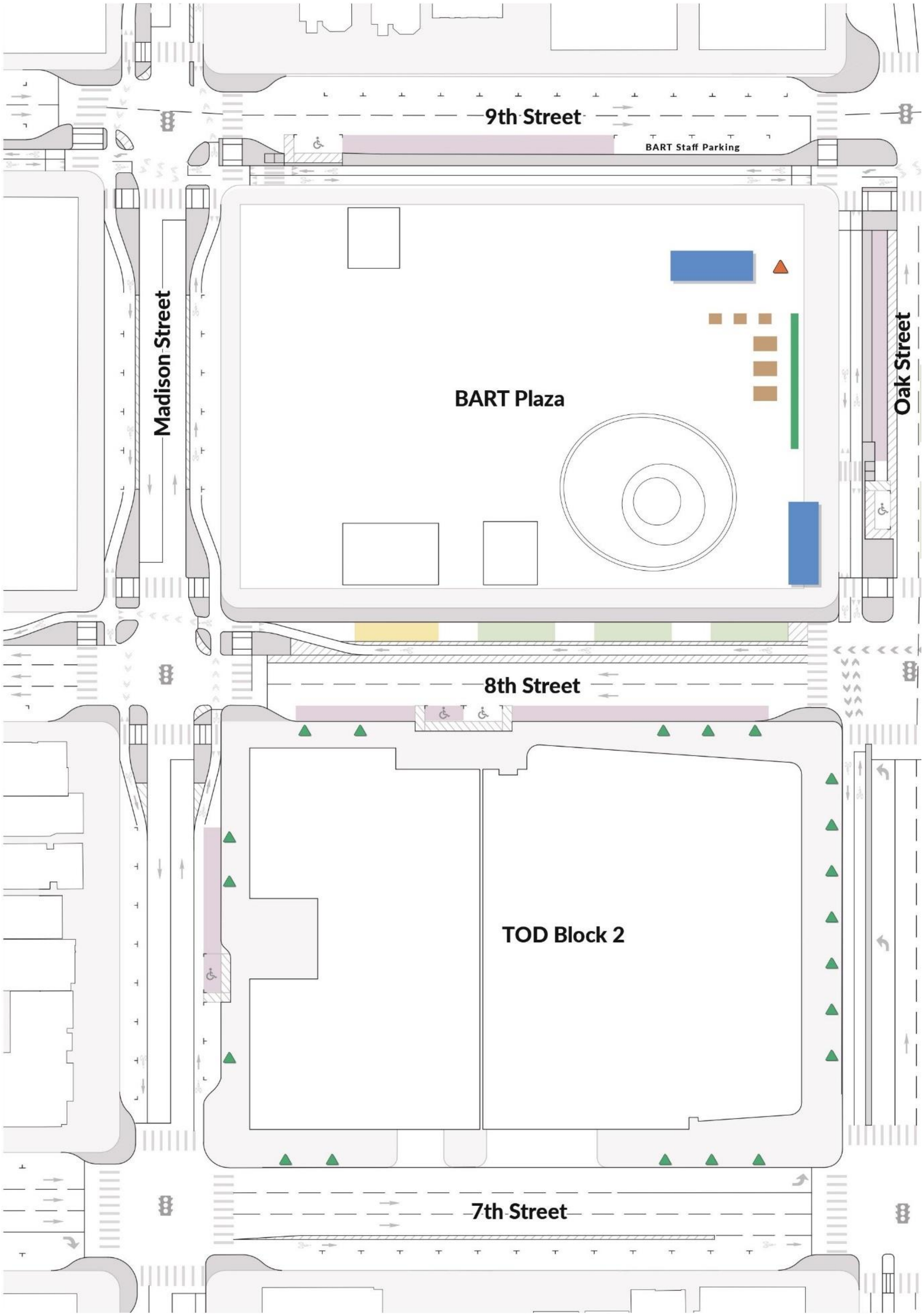

BUILDING D
BUILDING C
UP
GARBAGE TRUCK
Custom
35.30
6.50
18.30
GARBAGE TRUCK
feet
Width : 8.30
Track : 7.84
Lock to Lock Time : 6.0
Steering Angle : 29.1
N27°24'58"E 199.99'
N27°23'44"E 200.01'
°35'05"W 300.17'
7TH
7TH STREET

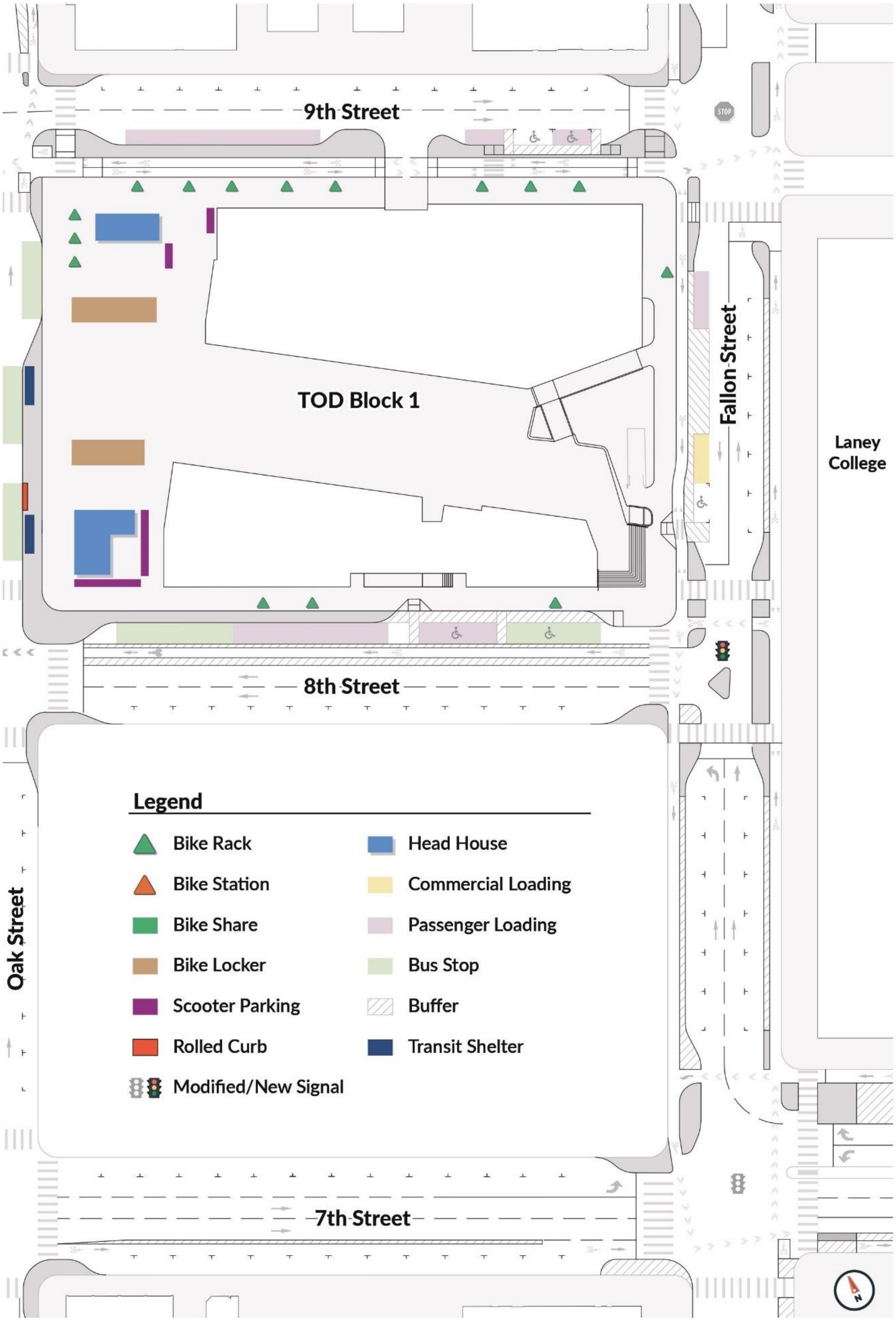


BUILDING D
BUILDING C
N27°24'58"E 199.99'
N27°23'44"E 200.01'
N62°35'05"W 300.17'
7TH STREET
GARBAGE TRUCK
Custom
35.30
6.50
18.30
GARBAGE TRUCK
feet
Width : 8.30
Track : 7.84
Lock to Lock Time : 6.0
Steering Angle : 29.1

APPENDIX B:
Lake Merritt BART Access Study Recommendations

Figure 4.1 | Lake Merritt BART access recommendations map




9th Street
TOD Block 1
Fallon Street
Laney College
8th Street
Oak Street
7th Street
STOP
Legend
Bike Rack
Bike Station
Bike Share
Bike Locker
Scooter Parking
Rolled Curb
Modified/New Signal
Head House
Commercial Loading
Passenger Loading
Bus Stop
Buffer
Transit Shelter
N

APPENDIX C:
Study Intersection LOS Reports

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	115	0	0	0	0	0	798	91	0	0	0
Future Volume (veh/h)	69	115	0	0	0	0	0	798	91	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.83			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	69	115	0				0	798	91			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	541	1042	0				0	2460	277			
Arrive On Green	0.33	0.33	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	1341	3323	0				0	4700	510			
Grp Volume(v), veh/h	73	111	0				0	594	295			
Grp Sat Flow(s),veh/h/ln	1427	1543	0				0	1695	1652			
Q Serve(g_s), s	2.4	1.8	0.0				0.0	6.8	6.9			
Cycle Q Clear(g_c), s	2.5	1.8	0.0				0.0	6.8	6.9			
Prop In Lane	0.95		0.00				0.00		0.31			
Lane Grp Cap(c), veh/h	569	1014	0				0	1840	897			
V/C Ratio(X)	0.13	0.11	0.00				0.00	0.32	0.33			
Avail Cap(c_a), veh/h	569	1014	0				0	1840	897			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.95	0.95			
Uniform Delay (d), s/veh	16.6	16.4	0.0				0.0	8.9	8.9			
Incr Delay (d2), s/veh	0.5	0.2	0.0				0.0	0.4	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.8	0.0				0.0	3.2	3.3			
LnGrp Delay(d),s/veh	17.1	16.6	0.0				0.0	9.3	9.8			
LnGrp LOS	B	B						A	A			
Approach Vol, veh/h		184						889				
Approach Delay, s/veh		16.8						9.5				
Approach LOS		B						A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		42.0		28.0				
Change Period (Y+Rc), s		4.0		5.0				
Max Green Setting (Gmax), s		38.0		23.0				
Max Q Clear Time (g_c+I1), s		8.9		4.5				
Green Ext Time (p_c), s		4.4		0.6				

Intersection Summary			
HCM 2010 Ctrl Delay			10.7
HCM 2010 LOS			B

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	126	63	0	90	129	0
Future Vol, veh/h	126	63	0	90	129	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	126	63	0	90	129	0
Number of Lanes	2	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	3	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	3
HCM Control Delay	7.8	8.5	8.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	SBLn1
Vol Left, %	0%	100%	100%	0%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	63	63	63	129
LT Vol	0	63	63	0	0
Through Vol	90	0	0	0	129
RT Vol	0	0	0	63	0
Lane Flow Rate	90	63	63	63	129
Geometry Grp	7	7	7	7	7
Degree of Util (X)	0.127	0.098	0.098	0.047	0.181
Departure Headway (Hd)	5.081	5.607	5.607	2.659	5.044
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	706	641	641	1346	712
Service Time	2.803	3.325	3.325	0.377	2.765
HCM Lane V/C Ratio	0.127	0.098	0.098	0.047	0.181
HCM Control Delay	8.5	8.9	8.9	5.5	8.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	0.1	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	66	523	72	116	245	0	0	249	63
Future Volume (vph)	0	0	0	66	523	72	116	245	0	0	249	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5			4.5			4.5	
Lane Util. Factor				1.00	0.95			1.00			1.00	
Frpb, ped/bikes				1.00	0.98			1.00			0.98	
Flpb, ped/bikes				0.89	1.00			0.98			1.00	
Frt				1.00	0.98			1.00			0.97	
Flt Protected				0.95	1.00			0.98			1.00	
Satd. Flow (prot)				1573	3389			1806			1778	
Flt Permitted				0.95	1.00			0.68			1.00	
Satd. Flow (perm)				1573	3389			1246			1778	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	66	523	72	116	245	0	0	249	63
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	66	583	0	0	361	0	0	290	0
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77
Confl. Bikes (#/hr)						9			5			1
Parking (#/hr)									0			
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)				30.7	30.7			20.3			20.3	
Effective Green, g (s)				30.7	30.7			20.3			20.3	
Actuated g/C Ratio				0.51	0.51			0.34			0.34	
Clearance Time (s)				4.5	4.5			4.5			4.5	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				804	1734			421			601	
v/s Ratio Prot					c0.17						0.16	
v/s Ratio Perm				0.04				c0.29				
v/c Ratio				0.08	0.34			0.86			0.48	
Uniform Delay, d1				7.5	8.6			18.5			15.7	
Progression Factor				0.84	0.68			1.23			1.00	
Incremental Delay, d2				0.2	0.5			14.3			0.2	
Delay (s)				6.4	6.3			37.0			15.9	
Level of Service				A	A			D			B	
Approach Delay (s)		0.0			6.3			37.0			15.9	
Approach LOS		A			A			D			B	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	220	715	0	0	0	0	0	458	82
Future Volume (veh/h)	0	0	0	220	715	0	0	0	0	0	458	82
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	0				0	1863	1863
Adj Flow Rate, veh/h				220	715	0				0	458	82
Adj No. of Lanes				1	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				815	1386	0				0	1622	667
Arrive On Green				0.13	0.13	0.00				0.00	0.46	0.46
Sat Flow, veh/h				1774	3632	0				0	3632	1455
Grp Volume(v), veh/h				220	715	0				0	458	82
Grp Sat Flow(s),veh/h/ln				1774	1770	0				0	1770	1455
Q Serve(g_s), s				6.8	11.3	0.0				0.0	4.8	1.9
Cycle Q Clear(g_c), s				6.8	11.3	0.0				0.0	4.8	1.9
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				815	1386	0				0	1622	667
V/C Ratio(X)				0.27	0.52	0.00				0.00	0.28	0.12
Avail Cap(c_a), veh/h				815	1386	0				0	1622	667
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.79	0.79	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				18.8	20.8	0.0				0.0	10.1	9.3
Incr Delay (d2), s/veh				0.6	1.1	0.0				0.0	0.4	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	5.7	0.0				0.0	2.5	0.8
LnGrp Delay(d),s/veh				19.5	21.9	0.0				0.0	10.5	9.7
LnGrp LOS				B	C						B	A
Approach Vol, veh/h					935						540	
Approach Delay, s/veh					21.3						10.4	
Approach LOS					C						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		32.0						28.0
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		27.5						23.5
Max Q Clear Time (g_c+I1), s		6.8						13.3
Green Ext Time (p_c), s		2.2						2.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	762	169	177	668	0	0	0	0
Future Volume (veh/h)	0	0	0	0	762	169	177	668	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.88	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	762	169	177	668	0			
Adj No. of Lanes				0	3	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	1095	239	1150	2055	0			
Arrive On Green				0.00	0.27	0.27	0.58	0.58	0.00			
Sat Flow, veh/h				0	4235	886	1774	3632	0			
Grp Volume(v), veh/h				0	633	298	177	668	0			
Grp Sat Flow(s),veh/h/ln				0	1695	1563	1774	1770	0			
Q Serve(g_s), s				0.0	10.1	10.3	2.8	5.9	0.0			
Cycle Q Clear(g_c), s				0.0	10.1	10.3	2.8	5.9	0.0			
Prop In Lane				0.00		0.57	1.00		0.00			
Lane Grp Cap(c), veh/h				0	913	421	1150	2055	0			
V/C Ratio(X)				0.00	0.69	0.71	0.15	0.33	0.00			
Avail Cap(c_a), veh/h				0	1469	678	1150	2055	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.88	0.88	0.00			
Uniform Delay (d), s/veh				0.0	19.7	19.8	5.9	6.5	0.0			
Incr Delay (d2), s/veh				0.0	0.4	0.8	0.3	0.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	4.7	4.6	1.4	2.9	0.0			
LnGrp Delay(d),s/veh				0.0	20.1	20.6	6.1	6.9	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					931			845				
Approach Delay, s/veh					20.2			6.7				
Approach LOS					C			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		39.3						20.7				
Change Period (Y+Rc), s		4.5						4.5				
Max Green Setting (Gmax), s		25.0						26.0				
Max Q Clear Time (g_c+I1), s		7.9						12.3				
Green Ext Time (p_c), s		3.1						3.8				
Intersection Summary												
HCM 2010 Ctrl Delay			13.8									
HCM 2010 LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	664	524	0	0	0	0	247	70	26	257	0
Future Volume (vph)	54	664	524	0	0	0	0	247	70	26	257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.98						0.98			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.94						0.97			1.00	
Flt Protected		1.00						1.00			1.00	
Satd. Flow (prot)		4650						1775			1847	
Flt Permitted		1.00						1.00			0.95	
Satd. Flow (perm)		4650						1775			1768	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	54	664	524	0	0	0	0	247	70	26	257	0
RTOR Reduction (vph)	0	166	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	1076	0	0	0	0	0	300	0	0	283	0
Confl. Peds. (#/hr)	32		15	15		32	38		70	70		38
Confl. Bikes (#/hr)									2			5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2278						633			630	
v/s Ratio Prot								c0.17				
v/s Ratio Perm		0.23									0.16	
v/c Ratio		0.47						0.47			0.45	
Uniform Delay, d1		10.2						14.9			14.8	
Progression Factor		1.00						1.00			1.41	
Incremental Delay, d2		0.7						2.5			2.3	
Delay (s)		10.9						17.5			23.2	
Level of Service		B						B			C	
Approach Delay (s)		10.9			0.0			17.5			23.2	
Approach LOS		B			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	472	288	0	0	0	0	0	0	134	630	0
Future Volume (veh/h)	0	472	288	0	0	0	0	0	0	134	630	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	472	288							134	630	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2627	804							770	1298	0
Arrive On Green	0.00	0.17	0.17							0.12	0.12	0.00
Sat Flow, veh/h	0	5253	1557							1774	3632	0
Grp Volume(v), veh/h	0	472	288							134	630	0
Grp Sat Flow(s),veh/h/ln	0	1695	1557							1774	1770	0
Q Serve(g_s), s	0.0	4.8	9.8							4.1	10.0	0.0
Cycle Q Clear(g_c), s	0.0	4.8	9.8							4.1	10.0	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2627	804							770	1298	0
V/C Ratio(X)	0.00	0.18	0.36							0.17	0.49	0.00
Avail Cap(c_a), veh/h	0	2627	804							770	1298	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.85	0.85							0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	14.0	16.1							18.5	21.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1							0.5	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	4.5							2.1	5.1	0.0
LnGrp Delay(d),s/veh	0.0	14.1	17.2							19.0	22.3	0.0
LnGrp LOS		B	B							B	C	
Approach Vol, veh/h		760									764	
Approach Delay, s/veh		15.3									21.8	
Approach LOS		B									C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				35.0		25.0		
Change Period (Y+Rc), s				4.0		3.0		
Max Green Setting (Gmax), s				31.0		22.0		
Max Q Clear Time (g_c+I1), s				11.8		12.0		
Green Ext Time (p_c), s				2.6		2.3		

Intersection Summary		
HCM 2010 Ctrl Delay		18.5
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	601	0	0	0	0	0	866	358	0	0	0
Future Volume (veh/h)	104	601	0	0	0	0	0	866	358	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	104	601	0				0	866	358			
Adj No. of Lanes	0	4	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	281	1511	0				0	1900	782			
Arrive On Green	0.29	0.29	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	715	5526	0				0	3668	1441			
Grp Volume(v), veh/h	210	495	0				0	839	385			
Grp Sat Flow(s),veh/h/ln	1630	1458	0				0	1695	1551			
Q Serve(g_s), s	5.1	6.4	0.0				0.0	10.5	10.6			
Cycle Q Clear(g_c), s	7.1	6.4	0.0				0.0	10.5	10.6			
Prop In Lane	0.50		0.00				0.00		0.93			
Lane Grp Cap(c), veh/h	543	1250	0				0	1840	842			
V/C Ratio(X)	0.39	0.40	0.00				0.00	0.46	0.46			
Avail Cap(c_a), veh/h	543	1250	0				0	1840	842			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	20.3	20.1	0.0				0.0	9.7	9.7			
Incr Delay (d2), s/veh	2.1	0.9	0.0				0.0	0.8	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.6	2.7	0.0				0.0	5.1	4.9			
LnGrp Delay(d),s/veh	22.4	21.1	0.0				0.0	10.5	11.5			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		705						1224				
Approach Delay, s/veh		21.5						10.8				
Approach LOS		C						B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		44.0		26.0				
Change Period (Y+Rc), s		6.0		6.0				
Max Green Setting (Gmax), s		38.0		20.0				
Max Q Clear Time (g_c+I1), s		12.6		9.1				
Green Ext Time (p_c), s		6.6		2.5				

Intersection Summary		
HCM 2010 Ctrl Delay		14.7
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	73	561	62	113	79	0	897	0	4	2	0	0
Future Volume (vph)	73	561	62	113	79	0	897	0	4	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0		3.0		3.0		3.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frpb, ped/bikes	1.00	1.00	0.93		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		0.96		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.95			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1758	3539	1471		1705		3500		1759			
Flt Permitted	0.95	1.00	1.00		0.35		1.00		1.00			
Satd. Flow (perm)	1758	3539	1471		632		3500		1759			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	73	561	62	113	79	0	897	0	4	2	0	0
RTOR Reduction (vph)	46	0	39	0	0	0	568	0	1	0	0	0
Lane Group Flow (vph)	27	561	23	0	192	0	329	0	5	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	22.0	22.0	22.0		22.0		22.0		32.0			
Effective Green, g (s)	22.0	22.0	22.0		22.0		22.0		32.0			
Actuated g/C Ratio	0.37	0.37	0.37		0.37		0.37		0.53			
Clearance Time (s)	3.0	3.0	3.0		3.0		3.0		3.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	644	1297	539		231		1283		938			
v/s Ratio Prot		0.16							c0.00			
v/s Ratio Perm	0.02		0.02		c0.30		0.09					
v/c Ratio	0.04	0.43	0.04		0.83		0.26		0.01			
Uniform Delay, d1	12.2	14.3	12.2		17.3		13.3		6.6			
Progression Factor	1.00	1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2	0.1	1.1	0.1		28.0		0.5		0.0			
Delay (s)	12.3	15.4	12.4		45.3		13.8		6.6			
Level of Service	B	B	B		D		B		A			
Approach Delay (s)		14.8				19.3			6.6			0.0
Approach LOS		B				B			A			A

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	269	0	0	0	0	0	595	121	0	0	0
Future Volume (veh/h)	221	269	0	0	0	0	0	595	121	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.82			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	221	269	0				0	595	121			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	605	1102	0				0	2112	413			
Arrive On Green	0.36	0.36	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1406	3238	0				0	4275	802			
Grp Volume(v), veh/h	221	269	0				0	487	229			
Grp Sat Flow(s),veh/h/ln	1406	1543	0				0	1695	1519			
Q Serve(g_s), s	8.4	4.3	0.0				0.0	5.7	6.0			
Cycle Q Clear(g_c), s	8.4	4.3	0.0				0.0	5.7	6.0			
Prop In Lane	1.00		0.00				0.00		0.53			
Lane Grp Cap(c), veh/h	605	1102	0				0	1744	781			
V/C Ratio(X)	0.37	0.24	0.00				0.00	0.28	0.29			
Avail Cap(c_a), veh/h	605	1102	0				0	1744	781			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.98	0.98			
Uniform Delay (d), s/veh	17.2	15.8	0.0				0.0	9.6	9.7			
Incr Delay (d2), s/veh	1.7	0.5	0.0				0.0	0.4	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	1.9	0.0				0.0	2.7	2.7			
LnGrp Delay(d),s/veh	18.9	16.4	0.0				0.0	10.0	10.7			
LnGrp LOS	B	B						B	B			
Approach Vol, veh/h		490						716				
Approach Delay, s/veh		17.5						10.2				
Approach LOS		B						B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		40.0		30.0				
Change Period (Y+Rc), s		4.0		5.0				
Max Green Setting (Gmax), s		36.0		25.0				
Max Q Clear Time (g_c+I1), s		8.0		10.4				
Green Ext Time (p_c), s		3.5		1.8				

Intersection Summary	
HCM 2010 Ctrl Delay	13.2
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	298	149	0	150	39	0
Future Vol, veh/h	298	149	0	150	39	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	298	149	0	150	39	0
Number of Lanes	2	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	3	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	3
HCM Control Delay	8.6	9.9	8.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	SBLn1
Vol Left, %	0%	100%	100%	0%	0%
Vol Thru, %	100%	0%	0%	0%	100%
Vol Right, %	0%	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	149	149	149	39
LT Vol	0	149	149	0	0
Through Vol	150	0	0	0	39
RT Vol	0	0	0	149	0
Lane Flow Rate	150	149	149	149	39
Geometry Grp	7	7	7	7	7
Degree of Util (X)	0.23	0.231	0.231	0.109	0.061
Departure Headway (Hd)	5.514	5.571	5.571	2.625	5.654
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	650	645	645	1360	631
Service Time	3.258	3.298	3.298	0.351	3.407
HCM Lane V/C Ratio	0.231	0.231	0.231	0.11	0.062
HCM Control Delay	9.9	10	10	5.7	8.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.9	0.9	0.9	0.4	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	52	526	34	119	184	0	0	334	83
Future Volume (vph)	0	0	0	52	526	34	119	184	0	0	334	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5			4.5			4.5	
Lane Util. Factor				1.00	0.95			1.00			1.00	
Frpb, ped/bikes				1.00	0.99			1.00			0.98	
Flpb, ped/bikes				0.89	1.00			0.99			1.00	
Frt				1.00	0.99			1.00			0.97	
Flt Protected				0.95	1.00			0.98			1.00	
Satd. Flow (prot)				1573	3463			1801			1779	
Flt Permitted				0.95	1.00			0.48			1.00	
Satd. Flow (perm)				1573	3463			889			1779	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	52	526	34	119	184	0	0	334	83
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	52	553	0	0	303	0	0	400	0
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77
Confl. Bikes (#/hr)						9			5			1
Parking (#/hr)									0			
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)				30.7	30.7			20.3			20.3	
Effective Green, g (s)				30.7	30.7			20.3			20.3	
Actuated g/C Ratio				0.51	0.51			0.34			0.34	
Clearance Time (s)				4.5	4.5			4.5			4.5	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				804	1771			300			601	
v/s Ratio Prot					c0.16						0.22	
v/s Ratio Perm				0.03				c0.34				
v/c Ratio				0.06	0.31			1.01			0.67	
Uniform Delay, d1				7.4	8.5			19.9			16.9	
Progression Factor				1.67	1.68			0.58			1.00	
Incremental Delay, d2				0.1	0.4			50.2			2.2	
Delay (s)				12.5	14.8			61.8			19.1	
Level of Service				B	B			E			B	
Approach Delay (s)		0.0			14.6			61.8			19.1	
Approach LOS		A			B			E			B	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	181	463	0	0	0	0	0	593	85
Future Volume (veh/h)	0	0	0	181	463	0	0	0	0	0	593	85
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	0				0	1863	1863
Adj Flow Rate, veh/h				181	463	0				0	593	85
Adj No. of Lanes				1	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				726	1209	0				0	1799	744
Arrive On Green				0.11	0.11	0.00				0.00	0.51	0.51
Sat Flow, veh/h				1774	3632	0				0	3632	1464
Grp Volume(v), veh/h				181	463	0				0	593	85
Grp Sat Flow(s),veh/h/ln				1774	1770	0				0	1770	1464
Q Serve(g_s), s				5.6	7.3	0.0				0.0	5.9	1.8
Cycle Q Clear(g_c), s				5.6	7.3	0.0				0.0	5.9	1.8
Prop In Lane				1.00		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				726	1209	0				0	1799	744
V/C Ratio(X)				0.25	0.38	0.00				0.00	0.33	0.11
Avail Cap(c_a), veh/h				726	1209	0				0	1799	744
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.83	0.83	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				20.0	20.8	0.0				0.0	8.7	7.7
Incr Delay (d2), s/veh				0.7	0.8	0.0				0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.9	3.7	0.0				0.0	3.0	0.8
LnGrp Delay(d),s/veh				20.7	21.5	0.0				0.0	9.2	8.0
LnGrp LOS				C	C						A	A
Approach Vol, veh/h					644						678	
Approach Delay, s/veh					21.3						9.1	
Approach LOS					C						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		35.0						25.0
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		30.5						20.5
Max Q Clear Time (g_c+I1), s		7.9						9.3
Green Ext Time (p_c), s		2.9						1.8

Intersection Summary		
HCM 2010 Ctrl Delay		15.0
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	493	151	153	534	0	0	0	0
Future Volume (veh/h)	0	0	0	0	493	151	153	534	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.86	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	493	151	153	534	0			
Adj No. of Lanes				0	3	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	880	253	1214	2183	0			
Arrive On Green				0.00	0.23	0.23	0.62	0.62	0.00			
Sat Flow, veh/h				0	3940	1087	1774	3632	0			
Grp Volume(v), veh/h				0	440	204	153	534	0			
Grp Sat Flow(s),veh/h/ln				0	1695	1468	1774	1770	0			
Q Serve(g_s), s				0.0	6.9	7.4	2.2	4.1	0.0			
Cycle Q Clear(g_c), s				0.0	6.9	7.4	2.2	4.1	0.0			
Prop In Lane				0.00		0.74	1.00		0.00			
Lane Grp Cap(c), veh/h				0	791	343	1214	2183	0			
V/C Ratio(X)				0.00	0.56	0.60	0.13	0.24	0.00			
Avail Cap(c_a), veh/h				0	1158	502	1214	2183	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.80	0.80	0.00			
Uniform Delay (d), s/veh				0.0	20.3	20.5	4.8	5.2	0.0			
Incr Delay (d2), s/veh				0.0	0.2	0.6	0.2	0.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	3.2	3.1	1.1	2.0	0.0			
LnGrp Delay(d),s/veh				0.0	20.5	21.1	5.0	5.4	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					644			687				
Approach Delay, s/veh					20.7			5.3				
Approach LOS					C			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		41.5						18.5
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		30.5						20.5
Max Q Clear Time (g_c+I1), s		6.1						9.4
Green Ext Time (p_c), s		2.6						2.3

Intersection Summary		
HCM 2010 Ctrl Delay		12.8
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	1321	257	0	0	0	0	194	208	42	343	0
Future Volume (vph)	58	1321	257	0	0	0	0	194	208	42	343	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.99						0.96			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.98						0.93			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		4911						1659			1846	
Flt Permitted		1.00						1.00			0.91	
Satd. Flow (perm)		4911						1659			1690	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	1321	257	0	0	0	0	194	208	42	343	0
RTOR Reduction (vph)	0	45	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	1591	0	0	0	0	0	385	0	0	385	0
Confl. Peds. (#/hr)	32		15	15		32	38		70	70		38
Confl. Bikes (#/hr)									2			5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2406						591			602	
v/s Ratio Prot								c0.23				
v/s Ratio Perm		0.32									0.23	
v/c Ratio		0.66						0.65			0.64	
Uniform Delay, d1		11.5						16.2			16.1	
Progression Factor		1.00						1.00			0.46	
Incremental Delay, d2		1.4						5.5			4.6	
Delay (s)		13.0						21.7			12.1	
Level of Service		B						C			B	
Approach Delay (s)		13.0			0.0			21.7			12.1	
Approach LOS		B			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	92.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1293	278	0	0	0	0	0	0	279	704	0
Future Volume (veh/h)	0	1293	278	0	0	0	0	0	0	279	704	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	1293	278							279	704	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2882	883							682	1121	0
Arrive On Green	0.00	0.19	0.19							0.10	0.10	0.00
Sat Flow, veh/h	0	5253	1559							1774	3632	0
Grp Volume(v), veh/h	0	1293	278							279	704	0
Grp Sat Flow(s),veh/h/ln	0	1695	1559							1774	1770	0
Q Serve(g_s), s	0.0	13.5	9.2							8.9	11.4	0.0
Cycle Q Clear(g_c), s	0.0	13.5	9.2							8.9	11.4	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2882	883							682	1121	0
V/C Ratio(X)	0.00	0.45	0.31							0.41	0.63	0.00
Avail Cap(c_a), veh/h	0	2882	883							682	1121	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.69	0.69							0.96	0.96	0.00
Uniform Delay (d), s/veh	0.0	16.1	14.3							22.3	23.5	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.6							1.7	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.4	4.2							4.7	6.0	0.0
LnGrp Delay(d),s/veh	0.0	16.4	15.0							24.1	26.0	0.0
LnGrp LOS		B	B							C	C	
Approach Vol, veh/h		1571									983	
Approach Delay, s/veh		16.2									25.5	
Approach LOS		B									C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				38.0		22.0		
Change Period (Y+Rc), s				4.0		3.0		
Max Green Setting (Gmax), s				34.0		19.0		
Max Q Clear Time (g_c+I1), s				15.5		13.4		
Green Ext Time (p_c), s				7.1		2.0		

Intersection Summary		
HCM 2010 Ctrl Delay		19.8
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	1395	0	0	0	0	0	555	534	0	0	0
Future Volume (veh/h)	135	1395	0	0	0	0	0	555	534	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	135	1395	0				0	555	534			
Adj No. of Lanes	0	4	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	260	2328	0				0	1405	630			
Arrive On Green	0.41	0.41	0.00				0.00	0.41	0.41			
Sat Flow, veh/h	466	5856	0				0	3558	1522			
Grp Volume(v), veh/h	440	1090	0				0	555	534			
Grp Sat Flow(s),veh/h/ln	1711	1458	0				0	1695	1522			
Q Serve(g_s), s	11.0	13.6	0.0				0.0	8.0	22.2			
Cycle Q Clear(g_c), s	14.0	13.6	0.0				0.0	8.0	22.2			
Prop In Lane	0.31		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	776	1812	0				0	1405	630			
V/C Ratio(X)	0.57	0.60	0.00				0.00	0.40	0.85			
Avail Cap(c_a), veh/h	776	1812	0				0	1405	630			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	16.0	16.0	0.0				0.0	14.4	18.5			
Incr Delay (d2), s/veh	2.7	1.3	0.0				0.0	0.8	13.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	5.7	0.0				0.0	3.9	11.5			
LnGrp Delay(d),s/veh	18.7	17.3	0.0				0.0	15.2	31.8			
LnGrp LOS	B	B						B	C			
Approach Vol, veh/h		1530						1089				
Approach Delay, s/veh		17.7						23.3				
Approach LOS		B						C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		35.0		35.0				
Change Period (Y+Rc), s		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0				
Max Q Clear Time (g_c+I1), s		24.2		16.0				
Green Ext Time (p_c), s		2.4		6.2				

Intersection Summary		
HCM 2010 Ctrl Delay		20.0
HCM 2010 LOS		C

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	138	1587	112	36	39	0	571	0	42	9	0	0
Future Volume (vph)	138	1587	112	36	39	0	571	0	42	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frpb, ped/bikes	1.00	1.00	0.92		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		1.00		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.98			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1756	3539	1459		1770		3494		1806			
Flt Permitted	0.95	1.00	1.00		0.13		1.00		1.00			
Satd. Flow (perm)	1756	3539	1459		240		3494		1806			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	138	1587	112	36	39	0	571	0	42	9	0	0
RTOR Reduction (vph)	77	0	62	0	0	0	318	0	3	0	0	0
Lane Group Flow (vph)	61	1587	50	0	75	0	253	0	48	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Effective Green, g (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Actuated g/C Ratio	0.44	0.44	0.44		0.44		0.44		0.39			
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	777	1567	646		106		1547		696			
v/s Ratio Prot		c0.45							c0.03			
v/s Ratio Perm	0.03		0.03		0.31		0.07					
v/c Ratio	0.08	1.01	0.08		0.71		0.16		0.07			
Uniform Delay, d1	11.3	19.5	11.2		15.8		11.7		13.6			
Progression Factor	0.33	0.59	0.34		1.00		1.00		1.00			
Incremental Delay, d2	0.2	23.9	0.2		32.9		0.2		0.2			
Delay (s)	3.9	35.4	4.0		48.7		11.9		13.8			
Level of Service	A	D	A		D		B		B			
Approach Delay (s)		31.1				16.2			13.8			0.0
Approach LOS		C				B			B			A

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	141	0	0	0	0	0	798	117	0	0	0
Future Volume (veh/h)	69	141	0	0	0	0	0	798	117	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.83			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	69	141	0				0	798	117			
Adj No. of Lanes	0	2	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	376	752	0				0	2368	342			
Arrive On Green	0.33	0.33	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	893	2374	0				0	4530	630			
Grp Volume(v), veh/h	113	97	0				0	617	298			
Grp Sat Flow(s),veh/h/ln	1572	1610	0				0	1695	1602			
Q Serve(g_s), s	2.1	3.0	0.0				0.0	7.1	7.3			
Cycle Q Clear(g_c), s	3.4	3.0	0.0				0.0	7.1	7.3			
Prop In Lane	0.61		0.00				0.00		0.39			
Lane Grp Cap(c), veh/h	599	529	0				0	1840	870			
V/C Ratio(X)	0.19	0.18	0.00				0.00	0.34	0.34			
Avail Cap(c_a), veh/h	599	529	0				0	1840	870			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.92	0.92			
Uniform Delay (d), s/veh	16.9	16.8	0.0				0.0	8.9	9.0			
Incr Delay (d2), s/veh	0.7	0.8	0.0				0.0	0.5	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.4	0.0				0.0	3.4	3.5			
LnGrp Delay(d),s/veh	17.6	17.5	0.0				0.0	9.4	10.0			
LnGrp LOS	B	B						A	A			
Approach Vol, veh/h		210						915				
Approach Delay, s/veh		17.6						9.6				
Approach LOS		B						A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		42.0		28.0				
Change Period (Y+Rc), s		4.0		5.0				
Max Green Setting (Gmax), s		38.0		23.0				
Max Q Clear Time (g_c+I1), s		9.3		5.4				
Green Ext Time (p_c), s		4.6		0.7				

Intersection Summary			
HCM 2010 Ctrl Delay			11.1
HCM 2010 LOS			B

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	144	108	0	94	132	0
Future Vol, veh/h	144	108	0	94	132	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	144	108	0	94	132	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9	8.4	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	144	108	132
LT Vol	0	144	0	0
Through Vol	94	0	0	132
RT Vol	0	0	108	0
Lane Flow Rate	94	144	108	132
Geometry Grp	2	7	7	2
Degree of Util (X)	0.123	0.223	0.131	0.171
Departure Headway (Hd)	4.709	5.569	4.364	4.664
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	761	645	821	770
Service Time	2.734	3.299	2.094	2.687
HCM Lane V/C Ratio	0.124	0.223	0.132	0.171
HCM Control Delay	8.4	9.9	7.8	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.8	0.4	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	109	553	72	116	263	0	0	271	63
Future Volume (vph)	0	0	0	109	553	72	116	263	0	0	271	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5			4.5			4.5	
Lane Util. Factor				1.00	0.95			1.00			1.00	
Frpb, ped/bikes				1.00	0.98			1.00			0.98	
Flpb, ped/bikes				0.89	1.00			0.99			1.00	
Frt				1.00	0.98			1.00			0.97	
Flt Protected				0.95	1.00			0.98			1.00	
Satd. Flow (prot)				1573	3396			1810			1784	
Flt Permitted				0.95	1.00			0.67			1.00	
Satd. Flow (perm)				1573	3396			1228			1784	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	109	553	72	116	263	0	0	271	63
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	21	0
Lane Group Flow (vph)	0	0	0	109	613	0	0	379	0	0	313	0
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77
Confl. Bikes (#/hr)						9			5			1
Parking (#/hr)									0			
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)				30.1	30.1			20.9			20.9	
Effective Green, g (s)				30.1	30.1			20.9			20.9	
Actuated g/C Ratio				0.50	0.50			0.35			0.35	
Clearance Time (s)				4.5	4.5			4.5			4.5	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				789	1703			427			621	
v/s Ratio Prot					c0.18						0.18	
v/s Ratio Perm				0.07				c0.31				
v/c Ratio				0.14	0.36			0.89			0.50	
Uniform Delay, d1				8.0	9.1			18.4			15.5	
Progression Factor				1.27	1.15			1.21			1.00	
Incremental Delay, d2				0.3	0.4			16.9			0.2	
Delay (s)				10.4	10.9			39.3			15.7	
Level of Service				B	B			D			B	
Approach Delay (s)		0.0			10.8			39.3			15.7	
Approach LOS		A			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	259	788	0	0	0	0	0	470	82
Future Volume (veh/h)	0	0	0	259	788	0	0	0	0	0	470	82
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	0				0	1863	1863
Adj Flow Rate, veh/h				259	788	0				0	470	82
Adj No. of Lanes				0	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				391	960	0				0	1622	667
Arrive On Green				0.13	0.13	0.00				0.00	0.46	0.46
Sat Flow, veh/h				772	2535	0				0	3632	1455
Grp Volume(v), veh/h				541	506	0				0	470	82
Grp Sat Flow(s),veh/h/ln				1612	1610	0				0	1770	1455
Q Serve(g_s), s				19.7	18.3	0.0				0.0	5.0	1.9
Cycle Q Clear(g_c), s				19.7	18.3	0.0				0.0	5.0	1.9
Prop In Lane				0.48		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				720	631	0				0	1622	667
V/C Ratio(X)				0.75	0.80	0.00				0.00	0.29	0.12
Avail Cap(c_a), veh/h				720	631	0				0	1622	667
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.66	0.66	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				24.5	23.9	0.0				0.0	10.1	9.3
Incr Delay (d2), s/veh				4.8	7.1	0.0				0.0	0.5	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.8	9.4	0.0				0.0	2.5	0.8
LnGrp Delay(d),s/veh				29.2	30.9	0.0				0.0	10.6	9.7
LnGrp LOS				C	C						B	A
Approach Vol, veh/h					1047						552	
Approach Delay, s/veh					30.0						10.5	
Approach LOS					C						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		32.0						28.0
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		27.5						23.5
Max Q Clear Time (g_c+I1), s		7.0						21.7
Green Ext Time (p_c), s		2.2						0.9

Intersection Summary			
HCM 2010 Ctrl Delay			23.3
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	830	178	221	685	0	0	0	0
Future Volume (veh/h)	0	0	0	0	830	178	221	685	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.90	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	830	178	221	685	0			
Adj No. of Lanes				0	2	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	996	214	1006	1767	0			
Arrive On Green				0.00	0.35	0.35	0.50	0.50	0.00			
Sat Flow, veh/h				0	2933	609	1774	3632	0			
Grp Volume(v), veh/h				0	517	491	221	685	0			
Grp Sat Flow(s),veh/h/ln				0	1770	1679	1774	1770	0			
Q Serve(g_s), s				0.0	16.1	16.1	4.3	7.2	0.0			
Cycle Q Clear(g_c), s				0.0	16.1	16.1	4.3	7.2	0.0			
Prop In Lane				0.00		0.36	1.00		0.00			
Lane Grp Cap(c), veh/h				0	621	589	1006	1767	0			
V/C Ratio(X)				0.00	0.83	0.83	0.22	0.39	0.00			
Avail Cap(c_a), veh/h				0	767	728	1006	1767	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.88	0.88	0.00			
Uniform Delay (d), s/veh				0.0	17.9	17.9	8.6	9.3	0.0			
Incr Delay (d2), s/veh				0.0	5.4	5.7	0.4	0.6	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	8.7	8.3	2.2	3.7	0.0			
LnGrp Delay(d),s/veh				0.0	23.3	23.5	9.0	9.9	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					1008			906				
Approach Delay, s/veh					23.4			9.7				
Approach LOS					C			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		34.4						25.6
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		25.0						26.0
Max Q Clear Time (g_c+I1), s		9.2						18.1
Green Ext Time (p_c), s		3.2						3.0

Intersection Summary			
HCM 2010 Ctrl Delay			16.9
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	699	524	0	0	0	0	265	147	48	300	0
Future Volume (vph)	54	699	524	0	0	0	0	265	147	48	300	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.98						0.97			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.94						0.95			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		4661						1721			1842	
Flt Permitted		1.00						1.00			0.85	
Satd. Flow (perm)		4661						1721			1573	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	54	699	524	0	0	0	0	265	147	48	300	0
RTOR Reduction (vph)	0	141	0	0	0	0	0	33	0	0	0	0
Lane Group Flow (vph)	0	1136	0	0	0	0	0	379	0	0	348	0
Confl. Peds. (#/hr)	32		15	15		32	38		70	70		38
Confl. Bikes (#/hr)									2			5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2283						613			561	
v/s Ratio Prot								0.22				
v/s Ratio Perm		0.24									c0.22	
v/c Ratio		0.50						0.62			0.62	
Uniform Delay, d1		10.3						15.9			15.9	
Progression Factor		1.00						1.00			1.31	
Incremental Delay, d2		0.8						4.6			5.0	
Delay (s)		11.1						20.5			25.9	
Level of Service		B						C			C	
Approach Delay (s)		11.1			0.0			20.5			25.9	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	606	288	0	0	0	0	0	0	169	646	0
Future Volume (veh/h)	0	606	288	0	0	0	0	0	0	169	646	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	606	288							169	646	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2627	804							770	1298	0
Arrive On Green	0.00	0.17	0.17							0.12	0.12	0.00
Sat Flow, veh/h	0	5253	1557							1774	3632	0
Grp Volume(v), veh/h	0	606	288							169	646	0
Grp Sat Flow(s),veh/h/ln	0	1695	1557							1774	1770	0
Q Serve(g_s), s	0.0	6.2	9.8							5.2	10.2	0.0
Cycle Q Clear(g_c), s	0.0	6.2	9.8							5.2	10.2	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2627	804							770	1298	0
V/C Ratio(X)	0.00	0.23	0.36							0.22	0.50	0.00
Avail Cap(c_a), veh/h	0	2627	804							770	1298	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.84	0.84							0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	14.6	16.1							19.0	21.2	0.0
Incr Delay (d2), s/veh	0.0	0.2	1.0							0.6	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	4.5							2.7	5.3	0.0
LnGrp Delay(d),s/veh	0.0	14.8	17.1							19.6	22.5	0.0
LnGrp LOS		B	B							B	C	
Approach Vol, veh/h		894									815	
Approach Delay, s/veh		15.5									21.9	
Approach LOS		B									C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				35.0		25.0		
Change Period (Y+Rc), s				4.0		3.0		
Max Green Setting (Gmax), s				31.0		22.0		
Max Q Clear Time (g_c+I1), s				11.8		12.2		
Green Ext Time (p_c), s				3.3		2.4		

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	619	0	0	0	0	0	879	358	0	0	0
Future Volume (veh/h)	152	619	0	0	0	0	0	879	358	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	152	619	0				0	879	358			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	310	1107	0				0	1909	775			
Arrive On Green	0.29	0.29	0.00				0.00	0.54	0.54			
Sat Flow, veh/h	809	4028	0				0	3685	1427			
Grp Volume(v), veh/h	284	487	0				0	847	390			
Grp Sat Flow(s),veh/h/ln	1600	1543	0				0	1695	1554			
Q Serve(g_s), s	9.8	9.4	0.0				0.0	10.7	10.7			
Cycle Q Clear(g_c), s	10.7	9.4	0.0				0.0	10.7	10.7			
Prop In Lane	0.54		0.00				0.00		0.92			
Lane Grp Cap(c), veh/h	536	881	0				0	1840	844			
V/C Ratio(X)	0.53	0.55	0.00				0.00	0.46	0.46			
Avail Cap(c_a), veh/h	536	881	0				0	1840	844			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	21.6	21.2	0.0				0.0	9.8	9.8			
Incr Delay (d2), s/veh	3.7	2.4	0.0				0.0	0.8	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	4.3	0.0				0.0	5.2	5.0			
LnGrp Delay(d),s/veh	25.3	23.7	0.0				0.0	10.6	11.6			
LnGrp LOS	C	C						B	B			
Approach Vol, veh/h		771						1237				
Approach Delay, s/veh		24.2						10.9				
Approach LOS		C						B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		44.0		26.0				
Change Period (Y+Rc), s		6.0		6.0				
Max Green Setting (Gmax), s		38.0		20.0				
Max Q Clear Time (g_c+I1), s		12.7		12.7				
Green Ext Time (p_c), s		6.7		2.1				

Intersection Summary		
HCM 2010 Ctrl Delay		16.0
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	77	576	62	113	79	0	926	0	4	2	0	0
Future Volume (vph)	77	576	62	113	79	0	926	0	4	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0		3.0		3.0		3.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frpb, ped/bikes	1.00	1.00	0.93		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		0.96		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.95			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1758	3539	1471		1707		3500		1759			
Flt Permitted	0.95	1.00	1.00		0.34		1.00		1.00			
Satd. Flow (perm)	1758	3539	1471		615		3500		1759			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	77	576	62	113	79	0	926	0	4	2	0	0
RTOR Reduction (vph)	49	0	39	0	0	0	586	0	1	0	0	0
Lane Group Flow (vph)	28	576	23	0	192	0	340	0	5	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	22.0	22.0	22.0		22.0		22.0		32.0			
Effective Green, g (s)	22.0	22.0	22.0		22.0		22.0		32.0			
Actuated g/C Ratio	0.37	0.37	0.37		0.37		0.37		0.53			
Clearance Time (s)	3.0	3.0	3.0		3.0		3.0		3.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	644	1297	539		225		1283		938			
v/s Ratio Prot		0.16							c0.00			
v/s Ratio Perm	0.02		0.02		c0.31		0.10					
v/c Ratio	0.04	0.44	0.04		0.85		0.26		0.01			
Uniform Delay, d1	12.2	14.4	12.2		17.5		13.3		6.6			
Progression Factor	1.00	1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2	0.1	1.1	0.1		31.5		0.5		0.0			
Delay (s)	12.4	15.5	12.4		49.0		13.8		6.6			
Level of Service	B	B	B		D		B		A			
Approach Delay (s)		14.9				19.9			6.6			0.0
Approach LOS		B				B			A			A

Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	304	0	0	0	0	0	595	155	0	0	0
Future Volume (veh/h)	221	304	0	0	0	0	0	595	155	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.82			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	221	304	0				0	595	155			
Adj No. of Lanes	0	2	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	518	677	0				0	1994	496			
Arrive On Green	0.36	0.36	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1190	1981	0				0	4044	964			
Grp Volume(v), veh/h	274	251	0				0	517	233			
Grp Sat Flow(s),veh/h/ln	1476	1610	0				0	1695	1450			
Q Serve(g_s), s	10.2	8.3	0.0				0.0	6.1	6.5			
Cycle Q Clear(g_c), s	10.2	8.3	0.0				0.0	6.1	6.5			
Prop In Lane	0.81		0.00				0.00		0.66			
Lane Grp Cap(c), veh/h	620	575	0				0	1744	746			
V/C Ratio(X)	0.44	0.44	0.00				0.00	0.30	0.31			
Avail Cap(c_a), veh/h	620	575	0				0	1744	746			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	0.97	0.97			
Uniform Delay (d), s/veh	17.8	17.1	0.0				0.0	9.7	9.8			
Incr Delay (d2), s/veh	2.3	2.4	0.0				0.0	0.4	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.5	4.1	0.0				0.0	2.9	2.8			
LnGrp Delay(d),s/veh	20.0	19.5	0.0				0.0	10.2	10.9			
LnGrp LOS	C	B						B	B			
Approach Vol, veh/h		525						750				
Approach Delay, s/veh		19.8						10.4				
Approach LOS		B						B				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		40.0		30.0				
Change Period (Y+Rc), s		4.0		5.0				
Max Green Setting (Gmax), s		36.0		25.0				
Max Q Clear Time (g_c+I1), s		8.5		12.2				
Green Ext Time (p_c), s		3.7		1.7				

Intersection Summary			
HCM 2010 Ctrl Delay			14.3
HCM 2010 LOS			B

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	316	196	0	164	43	0
Future Vol, veh/h	316	196	0	164	43	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	316	196	0	164	43	0
Number of Lanes	1	1	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	11.6	9.8	8.8
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	100%	0%	0%
Vol Thru, %	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	316	196	43
LT Vol	0	316	0	0
Through Vol	164	0	0	43
RT Vol	0	0	196	0
Lane Flow Rate	164	316	196	43
Geometry Grp	2	7	7	2
Degree of Util (X)	0.235	0.489	0.237	0.064
Departure Headway (Hd)	5.153	5.567	4.362	5.329
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	645	819	670
Service Time	3.193	3.313	2.107	3.383
HCM Lane V/C Ratio	0.236	0.49	0.239	0.064
HCM Control Delay	9.8	13.6	8.5	8.8
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.9	2.7	0.9	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	160	602	34	119	208	0	0	342	83
Future Volume (vph)	0	0	0	160	602	34	119	208	0	0	342	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.5	4.5			4.5			4.5	
Lane Util. Factor				1.00	0.95			1.00			1.00	
Frpb, ped/bikes				1.00	0.99			1.00			0.98	
Flpb, ped/bikes				0.89	1.00			0.99			1.00	
Frt				1.00	0.99			1.00			0.97	
Flt Protected				0.95	1.00			0.98			1.00	
Satd. Flow (prot)				1573	3472			1806			1781	
Flt Permitted				0.95	1.00			0.50			1.00	
Satd. Flow (perm)				1573	3472			917			1781	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	160	602	34	119	208	0	0	342	83
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	16	0
Lane Group Flow (vph)	0	0	0	160	630	0	0	327	0	0	409	0
Confl. Peds. (#/hr)	104		63	63		104	77		37	37		77
Confl. Bikes (#/hr)						9			5			1
Parking (#/hr)									0			
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					2			4			4	
Permitted Phases				2			4					
Actuated Green, G (s)				30.2	30.2			20.8			20.8	
Effective Green, g (s)				30.2	30.2			20.8			20.8	
Actuated g/C Ratio				0.50	0.50			0.35			0.35	
Clearance Time (s)				4.5	4.5			4.5			4.5	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				791	1747			317			617	
v/s Ratio Prot					c0.18						0.23	
v/s Ratio Perm				0.10				c0.36				
v/c Ratio				0.20	0.36			1.03			0.66	
Uniform Delay, d1				8.2	9.0			19.6			16.6	
Progression Factor				1.59	1.57			0.59			1.00	
Incremental Delay, d2				0.5	0.5			53.2			2.1	
Delay (s)				13.6	14.7			64.7			18.7	
Level of Service				B	B			E			B	
Approach Delay (s)		0.0			14.5			64.7			18.7	
Approach LOS		A			B			E			B	

Intersection Summary			
HCM 2000 Control Delay	26.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	228	647	0	0	0	0	0	597	85
Future Volume (veh/h)	0	0	0	228	647	0	0	0	0	0	597	85
Number				3	8	18				5	2	12
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	0				0	1863	1863
Adj Flow Rate, veh/h				228	647	0				0	597	85
Adj No. of Lanes				0	2	0				0	2	1
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				364	824	0				0	1799	744
Arrive On Green				0.11	0.11	0.00				0.00	0.51	0.51
Sat Flow, veh/h				802	2496	0				0	3632	1464
Grp Volume(v), veh/h				454	421	0				0	597	85
Grp Sat Flow(s),veh/h/ln				1602	1610	0				0	1770	1464
Q Serve(g_s), s				16.6	15.2	0.0				0.0	6.0	1.8
Cycle Q Clear(g_c), s				16.6	15.2	0.0				0.0	6.0	1.8
Prop In Lane				0.50		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				638	550	0				0	1799	744
V/C Ratio(X)				0.71	0.77	0.00				0.00	0.33	0.11
Avail Cap(c_a), veh/h				638	550	0				0	1799	744
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.73	0.73	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				24.9	24.3	0.0				0.0	8.7	7.7
Incr Delay (d2), s/veh				4.9	7.2	0.0				0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.3	7.9	0.0				0.0	3.0	0.8
LnGrp Delay(d),s/veh				29.8	31.5	0.0				0.0	9.2	8.0
LnGrp LOS				C	C						A	A
Approach Vol, veh/h					875						682	
Approach Delay, s/veh					30.6						9.1	
Approach LOS					C						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		35.0						25.0
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		30.5						20.5
Max Q Clear Time (g_c+I1), s		8.0						18.6
Green Ext Time (p_c), s		2.9						0.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	548	162	329	557	0	0	0	0
Future Volume (veh/h)	0	0	0	0	548	162	329	557	0	0	0	0
Number				3	8	18	5	2	12			
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.88	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln				0	1863	1900	1863	1863	0			
Adj Flow Rate, veh/h				0	548	162	329	557	0			
Adj No. of Lanes				0	2	0	1	2	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	688	202	1159	2074	0			
Arrive On Green				0.00	0.26	0.26	0.59	0.59	0.00			
Sat Flow, veh/h				0	2700	765	1774	3632	0			
Grp Volume(v), veh/h				0	371	339	329	557	0			
Grp Sat Flow(s),veh/h/ln				0	1770	1602	1774	1770	0			
Q Serve(g_s), s				0.0	11.7	11.9	5.7	4.6	0.0			
Cycle Q Clear(g_c), s				0.0	11.7	11.9	5.7	4.6	0.0			
Prop In Lane				0.00		0.48	1.00		0.00			
Lane Grp Cap(c), veh/h				0	467	423	1159	2074	0			
V/C Ratio(X)				0.00	0.79	0.80	0.28	0.27	0.00			
Avail Cap(c_a), veh/h				0	605	547	1159	2074	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.79	0.79	0.00			
Uniform Delay (d), s/veh				0.0	20.6	20.6	6.3	6.1	0.0			
Incr Delay (d2), s/veh				0.0	4.1	4.9	0.5	0.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.2	5.8	2.9	2.3	0.0			
LnGrp Delay(d),s/veh				0.0	24.6	25.5	6.8	6.4	0.0			
LnGrp LOS					C	C	A	A				
Approach Vol, veh/h					710			886				
Approach Delay, s/veh					25.1			6.5				
Approach LOS					C			A				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2						8
Phs Duration (G+Y+Rc), s		39.7						20.3
Change Period (Y+Rc), s		4.5						4.5
Max Green Setting (Gmax), s		30.5						20.5
Max Q Clear Time (g_c+I1), s		7.7						13.9
Green Ext Time (p_c), s		2.9						1.8

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	1338	257	0	0	0	0	218	235	50	451	0
Future Volume (vph)	58	1338	257	0	0	0	0	218	235	50	451	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6						4.6			4.6	
Lane Util. Factor		0.91						1.00			1.00	
Frpb, ped/bikes		0.99						0.96			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.98						0.93			1.00	
Flt Protected		1.00						1.00			1.00	
Satd. Flow (prot)		4913						1659			1848	
Flt Permitted		1.00						1.00			0.79	
Satd. Flow (perm)		4913						1659			1473	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	1338	257	0	0	0	0	218	235	50	451	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	1609	0	0	0	0	0	437	0	0	501	0
Confl. Peds. (#/hr)	32		15	15		32	38		70	70		38
Confl. Bikes (#/hr)									2			5
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						4			4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.4						21.4			21.4	
Effective Green, g (s)		29.4						21.4			21.4	
Actuated g/C Ratio		0.49						0.36			0.36	
Clearance Time (s)		4.6						4.6			4.6	
Vehicle Extension (s)		2.0						2.0			2.0	
Lane Grp Cap (vph)		2407						591			525	
v/s Ratio Prot								0.26				
v/s Ratio Perm		0.33									c0.34	
v/c Ratio		0.67						0.74			0.95	
Uniform Delay, d1		11.6						16.9			18.8	
Progression Factor		1.00						1.00			0.64	
Incremental Delay, d2		1.5						8.1			27.8	
Delay (s)		13.1						24.9			39.8	
Level of Service		B						C			D	
Approach Delay (s)		13.1			0.0			24.9			39.8	
Approach LOS		B			A			C			D	

Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.2
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1345	278	0	0	0	0	0	0	291	743	0
Future Volume (veh/h)	0	1345	278	0	0	0	0	0	0	291	743	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1863							1863	1863	0
Adj Flow Rate, veh/h	0	1345	278							291	743	0
Adj No. of Lanes	0	3	1							1	2	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2882	883							682	1121	0
Arrive On Green	0.00	0.19	0.19							0.10	0.10	0.00
Sat Flow, veh/h	0	5253	1559							1774	3632	0
Grp Volume(v), veh/h	0	1345	278							291	743	0
Grp Sat Flow(s),veh/h/ln	0	1695	1559							1774	1770	0
Q Serve(g_s), s	0.0	14.1	9.2							9.3	12.1	0.0
Cycle Q Clear(g_c), s	0.0	14.1	9.2							9.3	12.1	0.0
Prop In Lane	0.00		1.00							1.00		0.00
Lane Grp Cap(c), veh/h	0	2882	883							682	1121	0
V/C Ratio(X)	0.00	0.47	0.31							0.43	0.66	0.00
Avail Cap(c_a), veh/h	0	2882	883							682	1121	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.68	0.68							0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	16.3	14.3							22.5	23.8	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.6							1.9	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.7	4.2							4.9	6.4	0.0
LnGrp Delay(d),s/veh	0.0	16.7	15.0							24.4	26.7	0.0
LnGrp LOS		B	B							C	C	
Approach Vol, veh/h		1623									1034	
Approach Delay, s/veh		16.4									26.1	
Approach LOS		B									C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				38.0		22.0		
Change Period (Y+Rc), s				4.0		3.0		
Max Green Setting (Gmax), s				34.0		19.0		
Max Q Clear Time (g_c+I1), s				16.1		14.1		
Green Ext Time (p_c), s				7.3		1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	1465	0	0	0	0	0	572	534	0	0	0
Future Volume (veh/h)	317	1465	0	0	0	0	0	572	534	0	0	0
Number	7	4	14				5	2	12			
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1863	0				0	1863	1900			
Adj Flow Rate, veh/h	317	1465	0				0	572	534			
Adj No. of Lanes	0	3	0				0	3	0			
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	409	1610	0				0	1405	630			
Arrive On Green	0.41	0.41	0.00				0.00	0.41	0.41			
Sat Flow, veh/h	800	4040	0				0	3558	1522			
Grp Volume(v), veh/h	635	1147	0				0	572	534			
Grp Sat Flow(s),veh/h/ln	1603	1543	0				0	1695	1522			
Q Serve(g_s), s	26.9	24.3	0.0				0.0	8.3	22.2			
Cycle Q Clear(g_c), s	26.9	24.3	0.0				0.0	8.3	22.2			
Prop In Lane	0.50		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	741	1278	0				0	1405	630			
V/C Ratio(X)	0.86	0.90	0.00				0.00	0.41	0.85			
Avail Cap(c_a), veh/h	741	1278	0				0	1405	630			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	19.9	19.1	0.0				0.0	14.4	18.5			
Incr Delay (d2), s/veh	10.9	9.0	0.0				0.0	0.9	13.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.0	11.8	0.0				0.0	4.1	11.5			
LnGrp Delay(d),s/veh	30.7	28.2	0.0				0.0	15.3	31.8			
LnGrp LOS	C	C						B	C			
Approach Vol, veh/h		1782						1106				
Approach Delay, s/veh		29.1						23.3				
Approach LOS		C						C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4				
Phs Duration (G+Y+Rc), s		35.0		35.0				
Change Period (Y+Rc), s		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0				
Max Q Clear Time (g_c+I1), s		24.2		28.9				
Green Ext Time (p_c), s		2.4		0.1				

Intersection Summary			
HCM 2010 Ctrl Delay			26.8
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	152	1643	112	36	39	0	586	0	42	9	0	0
Future Volume (vph)	152	1643	112	36	39	0	586	0	42	9	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Lane Util. Factor	1.00	0.95	1.00		1.00		0.76		1.00			
Frpb, ped/bikes	1.00	1.00	0.92		1.00		0.97		0.99			
Flpb, ped/bikes	0.99	1.00	1.00		1.00		1.00		1.00			
Frt	1.00	1.00	0.85		1.00		0.85		0.98			
Flt Protected	0.95	1.00	1.00		0.95		1.00		1.00			
Satd. Flow (prot)	1756	3539	1459		1770		3494		1806			
Flt Permitted	0.95	1.00	1.00		0.13		1.00		1.00			
Satd. Flow (perm)	1756	3539	1459		240		3494		1806			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	152	1643	112	36	39	0	586	0	42	9	0	0
RTOR Reduction (vph)	85	0	62	0	0	0	326	0	2	0	0	0
Lane Group Flow (vph)	67	1643	50	0	75	0	260	0	49	0	0	0
Confl. Peds. (#/hr)	5		23	21	23		5	21		36	36	
Confl. Bikes (#/hr)			3									
Turn Type	Perm	NA	Perm	D.Pm	D.Pm		Perm		NA			
Protected Phases		4							2			
Permitted Phases	4		4	4	4		4					
Actuated Green, G (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Effective Green, g (s)	31.0	31.0	31.0		31.0		31.0		27.0			
Actuated g/C Ratio	0.44	0.44	0.44		0.44		0.44		0.39			
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0		6.0			
Vehicle Extension (s)	2.0	2.0	2.0		2.0		2.0		2.0			
Lane Grp Cap (vph)	777	1567	646		106		1547		696			
v/s Ratio Prot		c0.46							c0.03			
v/s Ratio Perm	0.04		0.03		0.31		0.07					
v/c Ratio	0.09	1.05	0.08		0.71		0.17		0.07			
Uniform Delay, d1	11.3	19.5	11.2		15.8		11.7		13.6			
Progression Factor	0.69	0.59	0.70		1.00		1.00		1.00			
Incremental Delay, d2	0.1	32.1	0.1		32.9		0.2		0.2			
Delay (s)	7.9	43.6	8.0		48.7		12.0		13.8			
Level of Service	A	D	A		D		B		B			
Approach Delay (s)		38.6				16.1			13.8			0.0
Approach LOS		D				B			B			A

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	0
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	21
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

APPENDIX D:
Predicted Collision Frequency

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	9th St/Oak St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	8,670
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	2,060
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1,500
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF* $_{COMB}$
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	1.00	1.00	0.91	1.00	0.90

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections											
(1)	(2)			(3)	(4)	(5)		(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**		**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21			$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c								
Total	-10.99	1.07	0.23	0.39	1.596		1.000	1.596	0.90	1.00	1.439
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	0.467	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$	0.305	0.487	0.90	1.00	0.439
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	1.062	$(5)_{TOTAL}-(5)_{FI}$	0.695	1.108	0.90	1.00	0.999

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.439	1.000	0.999	1.439
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.198	0.483	0.483	0.680
Head-on collision	0.049	0.022	0.030	0.030	0.052
Angle collision	0.347	0.152	0.244	0.244	0.396
Sideswipe	0.099	0.043	0.032	0.032	0.075
Other multiple-vehicle collision	0.055	0.024	0.211	0.211	0.235

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections											
(1)	(2)			(3)	(4)	(5)		(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**		**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27			$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c								
Total	-10.21	0.68	0.27	0.36	0.138		1.000	0.138	0.90	1.00	0.124
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.043	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$	0.315	0.043	0.90	1.00	0.039
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.094	$(5)_{TOTAL}-(5)_{FI}$	0.685	0.094	0.90	1.00	0.085

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type(FI)**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type (PDO)**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.039	1.000	0.085	0.124
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.029	0.870	0.074	0.103
Collision with other object	0.072	0.003	0.070	0.006	0.009
Other single-vehicle collision	0.040	0.002	0.023	0.002	0.004
Single-vehicle noncollision	0.141	0.006	0.034	0.003	0.008

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.065	6.27	1.00	0.405
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.405

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	1.439	0.124	1.563	0.015	1.00	0.023
Fatal and injury (FI)	--	--	--	--	1.00	0.023

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.198	0.483	0.680
Head-on collisions (from Worksheet 2D)	0.022	0.030	0.052
Angle collisions (from Worksheet 2D)	0.152	0.244	0.396
Sideswipe (from Worksheet 2D)	0.043	0.032	0.075
Other multiple-vehicle collision (from Worksheet 2D)	0.024	0.211	0.235
Subtotal	0.439	0.999	1.439
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.029	0.074	0.103
Collision with other object (from Worksheet 2F)	0.003	0.006	0.009
Other single-vehicle collision (from Worksheet 2F)	0.002	0.002	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.006	0.003	0.008
Collision with pedestrian (from Worksheet 2G or 2I)	0.405	0.000	0.405
Collision with bicycle (from Worksheet 2J)	0.023	0.000	0.023
Subtotal	0.467	0.085	0.552
Total	0.907	1.084	1.991

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	2.0
Fatal and injury (FI)	0.9
Property damage only (PDO)	1.1

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	8th St/Jackson St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	7,200
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	6,120
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1,700
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	3
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	4

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF_{COMB}*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	1.00	1.00	0.91	1.00	0.90

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections											
(1)	(2)			(3)	(4)	(5)		(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**		**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21			$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c								
Total	-10.99	1.07	0.23	0.39	1.680		1.000	1.680	0.90	1.00	1.515
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	0.477	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$	0.295	0.495	0.90	1.00	0.446
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	1.141	$(5)_{TOTAL}-(5)_{FI}$	0.705	1.185	0.90	1.00	1.069

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.446	1.000	1.069	1.515
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.201	0.483	0.516	0.717
Head-on collision	0.049	0.022	0.030	0.032	0.054
Angle collision	0.347	0.155	0.244	0.261	0.416
Sideswipe	0.099	0.044	0.032	0.034	0.078
Other multiple-vehicle collision	0.055	0.025	0.211	0.226	0.250

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections											
(1)	(2)			(3)	(4)	(5)		(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**		**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27			$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c								
Total	-10.21	0.68	0.27	0.36	0.163		1.000	0.163	0.90	1.00	0.147
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.055	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$	0.339	0.055	0.90	1.00	0.050
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.107	$(5)_{TOTAL}-(5)_{FI}$	0.661	0.108	0.90	1.00	0.097

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type(FI)**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type (PDO)**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.050	1.000	0.097	0.147
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.037	0.870	0.084	0.121
Collision with other object	0.072	0.004	0.070	0.007	0.010
Other single-vehicle collision	0.040	0.002	0.023	0.002	0.004
Single-vehicle noncollision	0.141	0.007	0.034	0.003	0.010

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.100	6.27	1.00	0.625
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.625

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	1.515	0.147	1.662	0.015	1.00	0.025
Fatal and injury (FI)	--	--	--	--	1.00	0.025

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.201	0.516	0.717
Head-on collisions (from Worksheet 2D)	0.022	0.032	0.054
Angle collisions (from Worksheet 2D)	0.155	0.261	0.416
Sideswipe (from Worksheet 2D)	0.044	0.034	0.078
Other multiple-vehicle collision (from Worksheet 2D)	0.025	0.226	0.250
Subtotal	0.446	1.069	1.515
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.037	0.084	0.121
Collision with other object (from Worksheet 2F)	0.004	0.007	0.010
Other single-vehicle collision (from Worksheet 2F)	0.002	0.002	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.007	0.003	0.010
Collision with pedestrian (from Worksheet 2G or 2I)	0.625	0.000	0.625
Collision with bicycle (from Worksheet 2J)	0.025	0.000	0.025
Subtotal	0.700	0.097	0.797
Total	1.146	1.166	2.312

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	2.3
Fatal and injury (FI)	1.1
Property damage only (PDO)	1.2

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	8th St/Madison St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	9,350
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	5,400
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1,700
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	3
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	3

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF* $_{COMB}$
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	1.00	1.00	0.91	1.00	0.90

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	2.159	1.000	2.159	0.90	1.00	1.947
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	0.631	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.304	0.656	0.90	1.00	0.592
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	1.446	$(5)_{TOTAL}-(5)_{FI}$ 0.696	1.503	0.90	1.00	1.355

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.592	1.000	1.355	1.947
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.266	0.483	0.655	0.921
Head-on collision	0.049	0.029	0.030	0.041	0.070
Angle collision	0.347	0.205	0.244	0.331	0.536
Sideswipe	0.099	0.059	0.032	0.043	0.102
Other multiple-vehicle collision	0.055	0.033	0.211	0.286	0.319

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.188	1.000	0.188	0.90	1.00	0.169
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.059	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.317	0.060	0.90	1.00	0.054
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.127	$(5)_{TOTAL}-(5)_{FI}$ 0.683	0.128	0.90	1.00	0.116

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.054	1.000	0.116	0.169
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.040	0.870	0.101	0.141
Collision with other object	0.072	0.004	0.070	0.008	0.012
Other single-vehicle collision	0.040	0.002	0.023	0.003	0.005
Single-vehicle noncollision	0.141	0.008	0.034	0.004	0.012

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.094	6.27	1.00	0.589
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.589

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	1.947	0.169	2.116	0.015	1.00	0.032
Fatal and injury (FI)	--	--	--	--	1.00	0.032

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.266	0.655	0.921
Head-on collisions (from Worksheet 2D)	0.029	0.041	0.070
Angle collisions (from Worksheet 2D)	0.205	0.331	0.536
Sideswipe (from Worksheet 2D)	0.059	0.043	0.102
Other multiple-vehicle collision (from Worksheet 2D)	0.033	0.286	0.319
Subtotal	0.592	1.355	1.947
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.040	0.101	0.141
Collision with other object (from Worksheet 2F)	0.004	0.008	0.012
Other single-vehicle collision (from Worksheet 2F)	0.002	0.003	0.005
Single-vehicle noncollision (from Worksheet 2F)	0.008	0.004	0.012
Collision with pedestrian (from Worksheet 2G or 2I)	0.589	0.000	0.589
Collision with bicycle (from Worksheet 2J)	0.032	0.000	0.032
Subtotal	0.674	0.116	0.790
Total	1.266	1.471	2.737

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	2.7
Fatal and injury (FI)	1.3
Property damage only (PDO)	1.5

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	8th St/Oak St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021
Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	9,410
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	8,450
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			4,900
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	3
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF* $_{COMB}$
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	1.00	1.00	0.91	1.00	0.90

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	2.410	1.000	2.410	0.90	1.00	2.173
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	0.702	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.302	0.728	0.90	1.00	0.657
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	1.620	$(5)_{TOTAL}-(5)_{FI}$ 0.698	1.682	0.90	1.00	1.516

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision $Type_{(FI)}$**	**Predicted $N_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bimv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.657	1.000	1.516	2.173
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.295	0.483	0.732	1.028
Head-on collision	0.049	0.032	0.030	0.045	0.078
Angle collision	0.347	0.228	0.244	0.370	0.598
Sideswipe	0.099	0.065	0.032	0.049	0.114
Other multiple-vehicle collision	0.055	0.036	0.211	0.320	0.356

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.213	1.000	0.213	0.90	1.00	0.192
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.068	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.321	0.068	0.90	1.00	0.062
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.143	$(5)_{TOTAL}-(5)_{FI}$ 0.679	0.145	0.90	1.00	0.130

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.062	1.000	0.130	0.192
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.046	0.870	0.113	0.159
Collision with other object	0.072	0.004	0.070	0.009	0.014
Other single-vehicle collision	0.040	0.002	0.023	0.003	0.005
Single-vehicle noncollision	0.141	0.009	0.034	0.004	0.013

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.183	6.27	1.00	1.148
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	1.148

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	2.173	0.192	2.365	0.015	1.00	0.035
Fatal and injury (FI)	--	--	--	--	1.00	0.035

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.295	0.732	1.028
Head-on collisions (from Worksheet 2D)	0.032	0.045	0.078
Angle collisions (from Worksheet 2D)	0.228	0.370	0.598
Sideswipe (from Worksheet 2D)	0.065	0.049	0.114
Other multiple-vehicle collision (from Worksheet 2D)	0.036	0.320	0.356
Subtotal	0.657	1.516	2.173
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.046	0.113	0.159
Collision with other object (from Worksheet 2F)	0.004	0.009	0.014
Other single-vehicle collision (from Worksheet 2F)	0.002	0.003	0.005
Single-vehicle noncollision (from Worksheet 2F)	0.009	0.004	0.013
Collision with pedestrian (from Worksheet 2G or 2I)	1.148	0.000	1.148
Collision with bicycle (from Worksheet 2J)	0.035	0.000	0.035
Subtotal	1.245	0.130	1.376
Total	1.902	1.647	3.549

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	3.5
Fatal and injury (FI)	1.9
Property damage only (PDO)	1.6

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	7th St/Jackson St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021
Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	16,360
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	7,870
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	1
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1,550
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	5

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF* $_{COMB}$
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	0.96	1.00	0.91	1.00	0.87

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	4.285	1.000	4.285	0.87	1.00	3.709
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.327	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.321	1.377	0.87	1.00	1.192
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.800	$(5)_{TOTAL}-(5)_{FI}$ 0.679	2.907	0.87	1.00	2.516

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision $Type_{(FI)}$**	**Predicted $N_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bimv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.192	1.000	2.516	3.709
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.536	0.483	1.215	1.752
Head-on collision	0.049	0.058	0.030	0.075	0.134
Angle collision	0.347	0.414	0.244	0.614	1.028
Sideswipe	0.099	0.118	0.032	0.081	0.199
Other multiple-vehicle collision	0.055	0.066	0.211	0.531	0.597

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.304	1.000	0.304	0.87	1.00	0.263
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.084	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.279	0.085	0.87	1.00	0.074
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.217	$(5)_{TOTAL}-(5)_{FI}$ 0.721	0.219	0.87	1.00	0.190

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.074	1.000	0.190	0.263
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.001
Collision with fixed object	0.744	0.055	0.870	0.165	0.220
Collision with other object	0.072	0.005	0.070	0.013	0.019
Other single-vehicle collision	0.040	0.003	0.023	0.004	0.007
Single-vehicle noncollision	0.141	0.010	0.034	0.006	0.017

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.109	6.27	1.00	0.684
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.684

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	3.709	0.263	3.972	0.015	1.00	0.060
Fatal and injury (FI)	--	--	--	--	1.00	0.060

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.536	1.215	1.752
Head-on collisions (from Worksheet 2D)	0.058	0.075	0.134
Angle collisions (from Worksheet 2D)	0.414	0.614	1.028
Sideswipe (from Worksheet 2D)	0.118	0.081	0.199
Other multiple-vehicle collision (from Worksheet 2D)	0.066	0.531	0.597
Subtotal	1.192	2.516	3.709
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.001
Collision with fixed object (from Worksheet 2F)	0.055	0.165	0.220
Collision with other object (from Worksheet 2F)	0.005	0.013	0.019
Other single-vehicle collision (from Worksheet 2F)	0.003	0.004	0.007
Single-vehicle noncollision (from Worksheet 2F)	0.010	0.006	0.017
Collision with pedestrian (from Worksheet 2G or 2I)	0.684	0.000	0.684
Collision with bicycle (from Worksheet 2J)	0.060	0.000	0.060
Subtotal	0.817	0.190	1.007
Total	2.009	2.706	4.715

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	4.7
Fatal and injury (FI)	2.0
Property damage only (PDO)	2.7

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	7th St/Madison St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	15,710
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	9,830
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1,960
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	4

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF_{COMB}*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	1.00	1.00	0.91	1.00	0.90

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	4.318	1.000	4.318	0.90	1.00	3.893
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.328	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.319	1.378	0.90	1.00	1.242
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.834	$(5)_{TOTAL}-(5)_{FI}$ 0.681	2.940	0.90	1.00	2.651

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.242	1.000	2.651	3.893
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.559	0.483	1.280	1.839
Head-on collision	0.049	0.061	0.030	0.080	0.140
Angle collision	0.347	0.431	0.244	0.647	1.078
Sideswipe	0.099	0.123	0.032	0.085	0.208
Other multiple-vehicle collision	0.055	0.068	0.211	0.559	0.628

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.314	1.000	0.314	0.90	1.00	0.283
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.088	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.284	0.089	0.90	1.00	0.080
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.222	$(5)_{TOTAL}-(5)_{FI}$ 0.716	0.225	0.90	1.00	0.203

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.080	1.000	0.203	0.283
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.001
Collision with fixed object	0.744	0.060	0.870	0.176	0.236
Collision with other object	0.072	0.006	0.070	0.014	0.020
Other single-vehicle collision	0.040	0.003	0.023	0.005	0.008
Single-vehicle noncollision	0.141	0.011	0.034	0.007	0.018

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.132	6.27	1.00	0.831
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.831

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	3.893	0.283	4.177	0.015	1.00	0.063
Fatal and injury (FI)	--	--	--	--	1.00	0.063

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.559	1.280	1.839
Head-on collisions (from Worksheet 2D)	0.061	0.080	0.140
Angle collisions (from Worksheet 2D)	0.431	0.647	1.078
Sideswipe (from Worksheet 2D)	0.123	0.085	0.208
Other multiple-vehicle collision (from Worksheet 2D)	0.068	0.559	0.628
Subtotal	1.242	2.651	3.893
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.001
Collision with fixed object (from Worksheet 2F)	0.060	0.176	0.236
Collision with other object (from Worksheet 2F)	0.006	0.014	0.020
Other single-vehicle collision (from Worksheet 2F)	0.003	0.005	0.008
Single-vehicle noncollision (from Worksheet 2F)	0.011	0.007	0.018
Collision with pedestrian (from Worksheet 2G or 2I)	0.831	0.000	0.831
Collision with bicycle (from Worksheet 2J)	0.063	0.000	0.063
Subtotal	0.974	0.203	1.177
Total	2.217	2.854	5.070

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	5.1
Fatal and injury (FI)	2.2
Property damage only (PDO)	2.9

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	7th St/Oak St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	15,300
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	10,890
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			2,690
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF* $_{COMB}$
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
1.00	0.99	1.00	1.00	0.91	1.00	0.90

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	4.298	1.000	4.298	0.90	1.00	3.875
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.317	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.318	1.366	0.90	1.00	1.231
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.827	$(5)_{TOTAL}-(5)_{FI}$ 0.682	2.932	0.90	1.00	2.644

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.231	1.000	2.644	3.875
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.554	0.483	1.277	1.831
Head-on collision	0.049	0.060	0.030	0.079	0.140
Angle collision	0.347	0.427	0.244	0.645	1.072
Sideswipe	0.099	0.122	0.032	0.085	0.206
Other multiple-vehicle collision	0.055	0.068	0.211	0.558	0.626

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.317	1.000	0.317	0.90	1.00	0.286
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.090	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.287	0.091	0.90	1.00	0.082
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.223	$(5)_{TOTAL}-(5)_{FI}$ 0.713	0.226	0.90	1.00	0.204

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.082	1.000	0.204	0.286
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.001
Collision with fixed object	0.744	0.061	0.870	0.177	0.239
Collision with other object	0.072	0.006	0.070	0.014	0.020
Other single-vehicle collision	0.040	0.003	0.023	0.005	0.008
Single-vehicle noncollision	0.141	0.012	0.034	0.007	0.019

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections										
(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.160	6.27	1.00	1.001
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	1.001

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	3.875	0.286	4.161	0.015	1.00	0.062
Fatal and injury (FI)	--	--	--	--	1.00	0.062

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.554	1.277	1.831
Head-on collisions (from Worksheet 2D)	0.060	0.079	0.140
Angle collisions (from Worksheet 2D)	0.427	0.645	1.072
Sideswipe (from Worksheet 2D)	0.122	0.085	0.206
Other multiple-vehicle collision (from Worksheet 2D)	0.068	0.558	0.626
Subtotal	1.231	2.644	3.875
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.001
Collision with fixed object (from Worksheet 2F)	0.061	0.177	0.239
Collision with other object (from Worksheet 2F)	0.006	0.014	0.020
Other single-vehicle collision (from Worksheet 2F)	0.003	0.005	0.008
Single-vehicle noncollision (from Worksheet 2F)	0.012	0.007	0.019
Collision with pedestrian (from Worksheet 2G or 2I)	1.001	0.000	1.001
Collision with bicycle (from Worksheet 2J)	0.062	0.000	0.062
Subtotal	1.146	0.204	1.350
Total	2.377	2.848	5.224

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	5.2
Fatal and injury (FI)	2.4
Property damage only (PDO)	2.8

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Sam Inoue-Alexander	Roadway	
Agency or Company	Fehr & Peers	Intersection	7th St/Fallon St
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	24,830
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	510
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C_i		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Permissive
Type of left-turn signal phasing for Leg #2		--	Permissive
Type of left-turn signal phasing for Leg #3		--	Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1,000
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	6
Number of bus stops within 300 m (1,000 ft) of the intersection		0	3
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF* $_{COMB}$
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.81	0.99	0.92	1.00	0.91	1.00	0.67

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	3.568	1.000	3.568	0.67	1.00	2.402
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.189	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.349	1.244	0.67	1.00	0.837
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.222	$(5)_{TOTAL}-(5)_{FI}$ 0.651	2.325	0.67	1.00	1.565

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision $Type_{(FI)}$**	**Predicted $N_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bimv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.837	1.000	1.565	2.402
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.377	0.483	0.756	1.132
Head-on collision	0.049	0.041	0.030	0.047	0.088
Angle collision	0.347	0.290	0.244	0.382	0.672
Sideswipe	0.099	0.083	0.032	0.050	0.133
Other multiple-vehicle collision	0.055	0.046	0.211	0.330	0.376

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.193	1.000	0.193	0.67	1.00	0.130
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.045	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.231	0.045	0.67	1.00	0.030
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.151	$(5)_{TOTAL}-(5)_{FI}$ 0.769	0.148	0.67	1.00	0.100

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{bisv\ (PDO)}$ (crashes/year)**	**Predicted $N_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.030	1.000	0.100	0.130
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.022	0.870	0.087	0.109
Collision with other object	0.072	0.002	0.070	0.007	0.009
Other single-vehicle collision	0.040	0.001	0.023	0.002	0.003
Single-vehicle noncollision	0.141	0.004	0.034	0.003	0.008

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16		(4)*(5)*(6)
Total	--	--	--	--	1.00	--
Fatal and injury (FI)	--	--	--	--	1.00	--

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
4.15	1.35	1.12	6.27

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.043	6.27	1.00	0.273
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.273

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Calibration factor, C_i**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17		(4)*(5)*(6)
Total	2.402	0.130	2.532	0.015	1.00	0.038
Fatal and injury (FI)	--	--	--	--	1.00	0.038

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.377	0.756	1.132
Head-on collisions (from Worksheet 2D)	0.041	0.047	0.088
Angle collisions (from Worksheet 2D)	0.290	0.382	0.672
Sideswipe (from Worksheet 2D)	0.083	0.050	0.133
Other multiple-vehicle collision (from Worksheet 2D)	0.046	0.330	0.376
Subtotal	0.837	1.565	2.402
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.022	0.087	0.109
Collision with other object (from Worksheet 2F)	0.002	0.007	0.009
Other single-vehicle collision (from Worksheet 2F)	0.001	0.002	0.003
Single-vehicle noncollision (from Worksheet 2F)	0.004	0.003	0.008
Collision with pedestrian (from Worksheet 2G or 2I)	0.273	0.000	0.273
Collision with bicycle (from Worksheet 2J)	0.038	0.000	0.038
Subtotal	0.341	0.100	0.441
Total	1.178	1.664	2.842

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections	
(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	2.8
Fatal and injury (FI)	1.2
Property damage only (PDO)	1.7

Worksheet 1A -- General Information and Input Data for Urban and Suburban Roadway Segments

General Information		Location Information	
Analyst	Sam Inoue-Alexander	Roadway	8th Street
Agency or Company	Fehr & Peers	Roadway Section	Madison Street to Oak Street
Date Performed	01/14/21	Jurisdiction	Oakland, CA
		Analysis Year	2021

Input Data		Base Conditions	Site Conditions
Roadway type (2U, 3T, 4U, 4D, ST)		--	4D
Length of segment, L (mi)		--	0.06
AADT (veh/day)	$AADT_{MAX}$ = 66,000 (veh/day)	--	18,780
Type of on-street parking (none/parallel/angle)		None	Parallel (Comm/Ind)
Proportion of curb length with on-street parking		--	0.9
Median width (ft) - for divided only		15	100
Lighting (present / not present)		Not Present	Present
Auto speed enforcement (present / not present)		Not Present	Not Present
Major commercial driveways (number)		--	0
Minor commercial driveways (number)		--	0
Major industrial / institutional driveways (number)		--	0
Minor industrial / institutional driveways (number)		--	0
Major residential driveways (number)		--	0
Minor residential driveways (number)		--	0
Other driveways (number)		--	0
Speed Category		--	Posted Speed 30 mph or Lower
Roadside fixed object density (fixed objects / mi)		0	200
Offset to roadside fixed objects (ft) [If greater than 30 or Not Present, input 30]		30	3
Calibration Factor, Cr		1.00	1.00

Worksheet 1B -- Crash Modification Factors for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
CMF for On-Street Parking	CMF for Roadside Fixed Objects	CMF for Median Width	CMF for Lighting	CMF for Automated Speed Enforcement	Combined CMF
CMF 1r	*CMF 2r*	*CMF 3r*	*CMF 4r*	*CMF 5r*	*CMF comb*
from Equation 12-32	from Equation 12-33	from Table 12-22	from Equation 12-34	from Section 12.7.1	(1)*(2)*(3)*(4)*(5)
1.64	2.27	0.92	0.91	1.00	3.13

Worksheet 1C -- Multiple-Vehicle Nondriveway Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**		**Overdispersion Parameter, k**	**Initial N_{brmv}**	**Proportion of Total Crashes**	**Adjusted N_{brmv}**	**Combined CMFs**	**Calibration Factor, Cr**	**Predicted N_{brmv}**
	from Table 12-3		from Table 12-3	from Equation 12-10		$(4)_{TOTAL}$*(5)	(6) from Worksheet 1B		(6)*(7)*(8)
	a	b							
Total	-12.34	1.36	1.32	0.170	1.000	0.170	3.13	1.00	0.533
Fatal and Injury (FI)	-12.76	1.28	1.31	0.051	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.282	0.048	3.13	1.00	0.150
Property Damage Only (PDO)	-12.81	1.38	1.34	0.130	$(5)_{TOTAL}-(5)_{FI}$ 0.718	0.122	3.13	1.00	0.383

Worksheet 1D -- Multiple-Vehicle Nondriveway Collisions by Collision Type for Urban and Suburban Roadway Segments					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{brmv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{brmv\ (PDO)}$ (crashes/year)**	**Predicted $N_{brmv\ (TOTAL)}$ (crashes/year)**
	from Table 12-4	$(9)_{FI}$ from Worksheet 1C	from Table 12-4	$(9)_{PDO}$ from Worksheet 1C	$(9)_{TOTAL}$ from Worksheet 1C
Total	1.000	0.150	1.000	0.383	0.533
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.832	0.125	0.662	0.253	0.378
Head-on collision	0.020	0.003	0.007	0.003	0.006
Angle collision	0.040	0.006	0.036	0.014	0.020
Sideswipe, same direction	0.050	0.008	0.223	0.085	0.093
Sideswipe, opposite direction	0.010	0.002	0.001	0.000	0.002
Other multiple-vehicle collision	0.048	0.007	0.071	0.027	0.034

Worksheet 1E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Roadway Segments									
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**		**Overdispersion Parameter, k**	**Initial N_{brsv}**	**Proportion of Total Crashes**	**Adjusted N_{brsv}**	**Combined CMFs**	**Calibration Factor, Cr**	**Predicted N_{brsv}**
	from Table 12-5		from Table 12-5	from Equation 12-13		$(4)_{TOTAL}*(5)$	(6) from Worksheet 1B		(6)*(7)*(8)
	a	b							
Total	-5.05	0.47	0.86	0.039	1.000	0.039	3.13	1.00	0.123
Fatal and Injury (FI)	-8.71	0.66	0.28	0.007	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.167	0.007	3.13	1.00	0.021
Property Damage Only (PDO)	-5.04	0.45	1.06	0.033	$(5)_{TOTAL}-(5)_{FI}$ 0.833	0.033	3.13	1.00	0.102

Worksheet 1F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Roadway Segments					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted $N_{brsv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted $N_{brsv\ (PDO)}$ (crashes/year)**	**Predicted $N_{brsv\ (TOTAL)}$ (crashes/year)**
	from Table 12-6	$(9)_{FI}$ from Worksheet 1E	from Table 12-6	$(9)_{PDO}$ from Worksheet 1E	$(9)_{TOTAL}$ from Worksheet 1E
Total	1.000	0.021	1.000	0.102	0.123
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with animal	0.001	0.000	0.063	0.006	0.006
Collision with fixed object	0.500	0.010	0.813	0.083	0.093
Collision with other object	0.028	0.001	0.016	0.002	0.002
Other single-vehicle collision	0.471	0.010	0.108	0.011	0.021

Worksheet 1G -- Multiple-Vehicle Driveway-Related Collisions by Driveway Type for Urban and Suburban Roadway Segments					
(1)	(2)	(3)	(4)	(5)	(6)
Driveway Type	**Number of driveways, n_j**	**Crashes per driveway per year, N_j**	**Coefficient for traffic adjustment, t**	**Initial N_{brdwy}**	**Overdispersion parameter, k**
		from Table 12-7	from Table 12-7	Equation 12-16 $n_j * N_j * (AADT/15,000)^t$	from Table 12-7
Major commercial	0	0.033	1.106	0.000	--
Minor commercial	0	0.011	1.106	0.000	
Major industrial/institutional	0	0.036	1.106	0.000	
Minor industrial/institutional	0	0.005	1.106	0.000	
Major residential	0	0.018	1.106	0.000	
Minor residential	0	0.003	1.106	0.000	
Other	0	0.005	1.106	0.000	
Total	--	--	--	0.000	1.39

Worksheet 1H -- Multiple-Vehicle Driveway-Related Collisions by Severity Level for Urban and Suburban Roadway Segments						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Initial N_{brdwy}**	**Proportion of total crashes (f_{dwy})**	**Adjusted N_{brdwy}**	**Combined CMFs**	**Calibration factor, C_r**	**Predicted N_{brdwy}**
	$(5)_{TOTAL}$ from Worksheet 1G	from Table 12-7	$(2)_{TOTAL}$ * (3)	(6) from Worksheet 1B		(4)*(5)*(6)
Total	0.000	1.000	0.000	3.13	1.00	0.000
Fatal and injury (FI)	--	0.284	0.000	3.13	1.00	0.000
Property damage only (PDO)	--	0.716	0.000	3.13	1.00	0.000

Worksheet 1I -- Vehicle-Pedestrian Collisions for Urban and Suburban Roadway Segments							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	**Predicted N_{brmv}**	**Predicted N_{brsv}**	**Predicted N_{brdwy}**	**Predicted N_{br}**	**f_{pedr}**	**Calibration factor, C_r**	**Predicted N_{pedr}**
	(9) from Worksheet 1C	(9) from Worksheet 1E	(7) from Worksheet 1H	(2)+(3)+(4)	from Table 12-8		(5)*(6)*(7)
Total	0.533	0.123	0.000	0.656	0.067	1.00	0.044
Fatal and injury (FI)	--	--	--	--	--	1.00	0.044

Worksheet 1J -- Vehicle-Bicycle Collisions for Urban and Suburban Roadway Segments							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Crash Severity Level	**Predicted N_{brmv}**	**Predicted N_{brsv}**	**Predicted N_{brdwy}**	**Predicted N_{br}**	**f_{biker}**	**Calibration factor, C_r**	**Predicted N_{biker}**
	(9) from Worksheet 1C	(9) from Worksheet 1E	(7) from Worksheet 1H	(2)+(3)+(4)	from Table 12-9		(5)*(6)*(7)
Total	0.533	0.123	0.000	0.656	0.013	1.00	0.009
Fatal and injury (FI)	--	--	--	--	--	1.00	0.009

Worksheet 1K -- Crash Severity Distribution for Urban and Suburban Roadway Segments			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 1D and 1F; (7) from Worksheet 1H; and (8) from Worksheet 1I and 1J	(5) from Worksheet 1D and 1F; and (7) from Worksheet 1H	(6) from Worksheet 1D and 1F; (7) from Worksheet 1H; and (8) from Worksheet 1I and 1J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 1D)	0.125	0.253	0.378
Head-on collisions (from Worksheet 1D)	0.003	0.003	0.006
Angle collisions (from Worksheet 1D)	0.006	0.014	0.020
Sideswipe, same direction (from Worksheet 1D)	0.008	0.085	0.093
Sideswipe, opposite direction (from Worksheet 1D)	0.002	0.000	0.002
Driveway-related collisions (from Worksheet 1H)	0.000	0.000	0.000
Other multiple-vehicle collision (from Worksheet 1D)	0.007	0.027	0.034
Subtotal	0.150	0.383	0.533
SINGLE-VEHICLE			
Collision with animal (from Worksheet 1F)	0.000	0.006	0.006
Collision with fixed object (from Worksheet 1F)	0.010	0.083	0.093
Collision with other object (from Worksheet 1F)	0.001	0.002	0.002
Other single-vehicle collision (from Worksheet 1F)	0.010	0.011	0.021
Collision with pedestrian (from Worksheet 1I)	0.044	0.000	0.044
Collision with bicycle (from Worksheet 1J)	0.009	0.000	0.009
Subtotal	0.073	0.102	0.175
Total	0.223	0.485	0.708

Worksheet 1L -- Summary Results for Urban and Suburban Roadway Segments			
(1)	(2)	(3)	(4)
Crash Severity Level	**Predicted average crash frequency, $N_{predicted\ rs}$ (crashes/year)**	**Roadway segment length, L (mi)**	**Crash rate (crashes/mi/year)**
	(Total) from Worksheet 1K		(2) / (3)
Total	0.7	0.06	11.8
Fatal and injury (FI)	0.2	0.06	3.7
Property damage only (PDO)	0.5	0.06	8.1

APPENDIX F

Transportation Demand Management Plan

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FEHR & PEERS

Memorandum

Date: May 12, 2021

To: Elizabeth Kanner, ESA

From: Sam Tabibnia, Fehr & Peers

Subject: Lake Merritt TOD Project - Transportation and Parking Demand Management Plan

OK19-0339

The proposed Lake Merritt BART TOD Project is required to prepare a Transportation and Parking Demand Management (TDM) Plan per the *City of Oakland's Transportation Impact Review Guidelines* and the City's Standard Conditions of Approval because the Project would generate more than 50 net new peak hour trips. Since the Project would generate more than 100 net new peak hour trips, the goal of the TDM Plan is to achieve a 20 percent vehicle trip reduction (VTR). This memorandum describes the Project and its setting, lists the mandatory TDM strategies that the Project shall implement to achieve the 20 percent VTR, provides the additional strategies that should be considered if the 20 percent VTR is not achieved, and describes the monitoring, evaluation, and enforcement of the TDM Plan.

Project Description

The Project consists of redevelopment of two blocks adjacent to the Lake Merritt BART Station in Oakland. The development on each block is described below:

- Block 1 is bounded by 8th Street to the south, Oak Street to the west, 9th Street to the north, and Fallon Street to the east. Currently, Block 1 consists of a parking lot and an entrance to the Lake Merritt BART Station. The Block 1 development would consist of the following buildings:
  - Building A would be a 28-story development consisting of up to 360 residential rental units and 4,500 square feet of retail.
  - Building B would be a seven-story development consisting of up to 97 affordable senior living units and 3,000 square feet of retail.

Block 1 would maintain the publicly owned BART plaza and include a pedestrian paseo through the center of the block between Oak and Fallon Streets. The Project would provide a parking garage accommodating 105 vehicles in Building A with a right-in/right-out only driveway on 9th Street. Block 1 would also provide 106 long-term and 28 short-term bicycle parking spaces.

- Block 2 is bounded by 7th Street to the south, Madison Street to the west, 8th Street to the north, and Oak Street to the east. Currently, Block 2 is occupied by the Metro Center office building and a parking lot. About 100,000 square feet of the building is currently occupied with about 275 employees. The Block 2 development would consist of the following buildings:
    - Building C would be a 19-story development consisting of 495,300 square feet of office space and 11,000 square feet of retail.
    - Building D would be a seven-story development consisting of up to 100 affordable housing units and 6,200 square feet of day care-space.

Block 2 would provide two parking garages for Buildings C and D accommodating a total of 303 vehicles with two left-in/left-out driveways on 7th Street. Block 2 would also provide 81 long-term and 35 short-term bicycle parking spaces.

Overall, the Project would provide 495,300 square feet of office space, 6,200 square feet of day-care space, 18,500 square feet of retail, and 557 dwelling units, as well as 408 vehicle parking spaces.

The Project would also include the following improvements in the public right-of-way:

- Dual-directional curb-ramps at the intersection corners adjacent to the Project and as mid-block ramps at the designated loading areas;
- High-visibility crosswalks on all the approaches of the intersections adjacent to the Project;
- Concrete bulb-outs at the intersection corners adjacent to the Project;
- Sidewalk improvements that generally provide a minimum pedestrian clear width of eight feet along Block 1 frontages and 5.5 feet along Block 2 frontages;
- On-street passenger loading (including ADA-designated passenger loading) and associated sidewalk, curb improvements, and striping;
- ADA-designated on-street parking spaces;
- A two-way Class 4 separated bikeway, at the roadway level, on the south side of 9th Street between Oak and Fallon Streets;
- A one-way westbound Class 2B buffered bicycle lane on the north side of 8th Street between Fallon and Oak Streets;

- A one-way southbound Class 4 separated bikeway, at the roadway level, on the west side of Fallon Street between 8th and 9th Streets and
- Amenities such as street trees, short-term bicycle parking, and dockless scooter corrals along the Project frontage sidewalks that do not block the pedestrian through zones.

Project Location

The Project is located in a moderately dense area with streets generally laid out in a grid and sidewalks on both sides of most streets. It is located near some existing neighborhood-serving retail and residential uses, and there are several proposed developments in the area that would increase residential density and provide neighborhood-serving retail uses. Additionally, the Project is in Downtown Oakland, a dense employment center.

The Project is adjacent to the Lake Merritt BART Station, which is served by three BART lines and four AC Transit local bus lines. AC Transit Line 18 has 15-minute peak headways, while Line 62 and Line 88 have 20-minute peak headways, and Line 96 has 30-minute peak headways. No major changes to the bus routes operating near the Project site are planned.

The Project's proximity to regional transit and dense employment centers is likely to result in relatively high rates of walking, bicycling and transit use by residents and visitors. This is evidenced in part by the travel patterns of the area's existing residents. Based on US Census data, **Table 1** summarizes the transportation mode split for employed residents' journey to work for the census tracts in the Project vicinity. About 33 percent of employed residents report driving alone to work. A high proportion of residents, approximately 42 percent, used public transportation to travel to work. The portion of residents who walk or bike to work was also relatively high, with 19 percent reporting walking or biking to work. **Table 2** summarizes vehicle ownership for households for the census tracts in the Project vicinity. About 22 percent of households in the Project vicinity do not own vehicles, and the average automobile ownership is about one vehicle per renter household.

The number of automobile trips generated by the Project is estimated to be slightly more than half the trips generated by a typical suburban residential development, as shown in **Table 3**. The residential components of the Project are also expected to generate a vehicle miles traveled (VMT) per resident that is about 33 percent of the regional VMT per resident, and the office components of the Project are expected to generate a VMT per worker that is about 85 percent of the regional VMT per worker.

Table 1: Journey to Work for Employed Residents

Transportation Mode	Percent of Households with Employed Residents
Drove Alone	33%
Carpooled	4%
Public transportation	42%
Bicycle	2%
Walked	17%
Other	2%
Total	**100%**

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates, Census Tracts 4034, 4030, 4033, and 98342, Table B08006.

Table 2: Vehicle Ownership for Employed Residents

Vehicles Available	Percent of Households with Employed Residents
No vehicle available	22%
1 vehicle available	60%
2 vehicles available	16%
3+ vehicles available	1%
Total	**100%**

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates, Census Tracts 4034, 4030, 4033, and 98342, Table B08203.

Table 3: Project Trip Generation by Travel Mode

Mode	Mode Share Adjustment Factors[1]	Daily	AM Peak Hour	PM Peak Hour
Automobile	0.531	4,130	352	419
Transit	0.297	2,310	197	234
Bike	0.051	400	34	40
Walk	0.105	820	70	83
	Total Net Trips	**7,660**	**653**	**776**

Notes:

1. Based on *City of Oakland TIRG*, for an urban environment within 0.5 miles of a BART station.

Source: Fehr & Peers, 2021.

Mandatory TDM Strategies

This section describes the mandatory strategies that shall be implemented as part of the Project. These strategies shall be directly implemented by the Project applicant and building management. **Table 4** describes all mandatory TDM strategies that apply to the Project, as well as the effectiveness of each strategy based on research compiled in Quantifying Greenhouse Gas Mitigation Measures (California Air Pollution Control Officers Association (CAPCOA), August 2010). The CAPCOA report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies.

The City of Oakland Standard Conditions of Approval (SCA) #78 (Transportation and Parking Demand Management) lists infrastructure and operational strategies that must be incorporated into a TDM plan based on project location and other characteristics. **Appendix A** presents these strategies and indicates if and how they apply to the Project.

The mandatory operational strategies in Table 4 are generally targeted at Project residents and employees. While some of the mandatory operational strategies would also affect the travel behavior of retail customers and residential and office visitors, these groups are not directly targeted with TDM programs. The majority of the retail customers would likely be local residents and workers who would walk or bike to the site, and most residential and office visitors would visit the Project too infrequently to be aware of the TDM benefits or to make them cost effective. The TDM program also includes infrastructure improvements that would benefit all site residents, employees, and visitors, as well residents, employees, and visitors in the surrounding areas, and BART riders at the Lake Merritt BART Station.

The VTR estimates in Table 4 represent conservative assumptions about potential trip reduction at the low end of the range. Due to the Project's location in an area with very good transit, bicycle, and pedestrian access, it is expected that the high end of the VTR range would be achieved with this TDM program.

The TDM strategies include both one-time physical improvements and on-going operational strategies. Physical improvements will be constructed as part of the Project and are therefore anticipated to have a one-time capital cost. Some level of ongoing maintenance cost may also be required for certain improvements. Operational strategies provide on-going incentives and support for the use of non-auto transportation modes. These TDM measures have monthly or annual costs and will require on-going management. A more detailed description of the TDM measures that comprise the mandatory TDM program is provided below:

Table 4: Mandatory TDM Program Components

TDM Strategy	Description	Estimated Vehicle Trip Reduction[1] Residents	Estimated Vehicle Trip Reduction[1] Workers
A. Infrastructure Improvements	Various improvements	--[3]	--[3]
B. Limited Residential Parking Supply	Project would provide a maximum of 0.3 parking spaces per unit, compared to average vehicle ownership of one vehicle per household in the surrounding areas	8 – 15%[2]	N/A
C. Unbundled Parking	Parking spaces leased separately from unit rent		
D. Minimal Parking for Office/Commercial Uses	Minimal parking is provided for the office or commercial uses (approximately one space per 2.0KSF, less than the maximum one space per 0.5 KSF)	N/A	9 – 13%
E. Commercial Parking Management	No monthly permits and market-rate parking rates		
F. Car-share Parking Spaces	Dedicated on-site car-share parking spaces	<1%	<1%
G. Guaranteed Ride Home	Promotion of and enrollment of employees in Alameda County's Guaranteed Ride Home program	N/A	--[3]
H. Bicycle Parking Supply and Monitoring	Provide bicycle parking above the minimum requirement and monitor usage of the bicycle parking facilities	<1%	<1%
I. Transit Fare Subsidy (Residents)	Provide transit subsidy to residents (Required by Code) [4]	5 – 10%	N/A
J. Transit Fare Subsidy (Workers)	Provide transit subsidy to employees[4]	N/A	6 – 12%
K. Pre-Tax Commuter Benefit	Enroll in a service to assist with employees deducting transit passes using pre-tax income		
L. TDM Marketing and Education	Active marketing of carpooling, BART, AC Transit, bike-sharing, and other non-auto modes	1%	1%
M. On-Site TDM Coordinator	Coordinator responsible for implementing and managing the TDM Plan		
	Component Estimated Vehicle Trip Reduction	14-26%	16-26%
	Percent of Total Trip Reduction	28%	72%
	Total Estimated Vehicle Trip Reduction	**15 – 26%**	

Notes:

1. The focus of the CAPCOA document is reductions to VMT but the research used to generate the reductions also indicates vehicle trip reductions are applicable as well. For the purposes of this analysis the VTR is assumed to equal the VMT reduction. See the cited CAPCOA research for more information and related information on page 8 of the BAAQMD *Transportation Demand Management Tool User's Guide* (June 2012).
2. CAPCOA document suggest that limited parking supply combined with unbundled parking can result in up to 20% VTR. However, the CAPCOA results assume minimal other parking facilities in the area. Thus, the CAPCOA-based results are adjusted because other parking is available in the Project area.
3. The effectiveness of this strategy cannot be quantified at this time. This does not necessarily imply that the strategy is ineffective. It only demonstrates that at the time of the CAPCOA report development, existing literature did not provide a robust methodology for calculating its effectiveness. In addition, many strategies are complementary to each other and isolating their specific effectiveness may not be feasible.
4. Assuming a subsidy of about $2.00 per unit and per employee per day available to all residents and employees (value to user and not necessarily cost).

Source: Fehr & Peers, 2021.

A. *Infrastructure Improvements* – The following infrastructure improvements in the Project vicinity were identified in the Transportation Impact Review for the Project, and improve the bicycling, walking, and transit systems in the area and further encourage the use of these modes:

Recommendation 1: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Ensure adequate sight distance between exiting vehicles and pedestrians on the adjacent sidewalk at the Building A driveway on 9th Street and the Building C and Building D driveways on 7th Street. If adequate sight distance cannot be achieved, provide audio and visual warning devices at the driveway and/or provide three-foot low landscaping buffer along the building edge adjacent to the driveways.
- Consider extending the Buildings C and D curb-cut to the west to widen the curb-cut to 27-feet to allow incoming and outgoing vehicles to utilize the driveways simultaneously.
- Study the turning movements for larger trucks (such as WB-40) maneuvering into and out of the Building A loading docks on 9th Street and the Building C loading docks on 7th Street to ensure adequate truck access.
- Consider redesigning the Building C garage to provide adequate circulation for vehicles and to allow two vehicles to simultaneously enter and exit the internal garage ramps. If the Building C garage cannot be redesigned, install mirrors at the bottom and top of each internal ramp to improve visibility.

Recommendation 2: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- 9th Street/Oak Street - Replace existing signals with new mast arms and signal heads to provide signal head for the westbound 9th Street bike approach.

Recommendation 3: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Ensure that at least two of the short-term bicycle parking spaces near the Building D day-care are cargo-bike accessible to facilitate day-care pick-ups and drop offs.
- Ensure the bike parking in the sidewalks, fronting all streets in the Project vicinity do not conflict with the minimum pedestrian clear width areas or do not conflict with the minimum of 48-inch clear distance at the curb to ensure access from the accessible passenger loading zones or parking spaces to the sidewalk.

Recommendation 4: While not required to address a CEQA impact, the following improvements shall be implemented by the Project at the discretion of City staff for at least the intersection corners along the Project frontages and the receiving corners, and preferably for the entire intersection, unless noted otherwise:

- 9th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, pedestrian countdown signal heads, high-visibility crosswalk markings, leading pedestrian intervals, and advance stop bars.
- 9th Street/Fallon Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars on the west and south approaches of the intersection. In addition, consider installing a raised intersection or a raised crosswalk on the south side of the intersection.
- 8th Street/Madison Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps and leading pedestrian intervals.
- 8th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps and leading pedestrian intervals.
- 8th Street/Fallon Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, high-visibility crosswalk markings, and advance stop bars. Eliminate one of the two left-turn lanes on the northbound Fallon Street approach.
- 7th Street/Madison Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, and leading pedestrian intervals.
- 9th Street/Oak Street intersection - Install concrete bulb-outs with ADA-accessible directional curb ramps, accessible pedestrian signals, pedestrian countdown signal heads, high-visibility crosswalk markings, leading pedestrian intervals, and advance stop bars.

Recommendation 5: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- If feasible, subject to additional approval by BART, replace the existing concrete canopy with ADA-accessible bus shelters near the curb at each bus stop on the east side of Oak Street between 8th and 9th Streets.

Recommendation 6: While not required to address a CEQA impact, the following shall be implemented by the Project at the discretion of City staff:

- Consider eliminating one of the loading berths in Building A and relocating the remaining loading berth to have access through the main garage driveway to reduce the number of curb-cuts on 9th Street.

B. *Limited Residential Parking Supply* – The Project will provide about 154 off-street automobile parking spaces for the residential component of the Project, which corresponds to about 0.3 spaces per unit. This is less than the current average auto ownership of one vehicle per household in the Project area, as shown in Table 1, and would attract households with no vehicles.

C. *Unbundled Parking* – Unbundle parking costs from housing costs (as required by Oakland Municipal Code, Section 17.116.310). This would result in residents paying one price for the residential unit and a separate price for parking, should they opt for a space. The price of a parking space can be adjusted so that resident parking demand matches the building's parking supply.

D. *Minimal Parking for Office/Commercial Uses* – The Project will provide about 254 spaces for slightly less than 500,000 square feet of office space, corresponding to about one space per about 2,000 square feet of space, which is about 25 percent of the maximum required off-street parking for the Project, and only accommodating a small portion of the Project workers.

E. *Office/Commercial Parking* Management – The Project shall implement the following for the office/commercial parking facilities or if any public parking is provided:

  - Charge for all off-street parking spaces unless noted in other strategies
  - Remove the cost of parking from the commercial lease agreements
  - No monthly parking would be provided
  - Set the fee for daily, and/or hourly parking to be same as or higher than other nearby garages

F. *Car-share Parking Spaces* – As required by the Oakland Municipal Code, Section 17.116.105, the Building A and Building C garages would provide three and one car-share spaces, respectively, for the residential components of the Project. In addition, the Building C commercial parking garage shall offer to dedicate for free at least two on-site parking spaces available for car-sharing for the Project office component. Monitor the usage of the car-sharing spaces and adjust if necessary.

G. *Guaranteed Ride Home* – Encourage Project commercial tenants to register their employees and promote the Alameda County Transportation Commission Guaranteed Ride Home (GRH) program. GRH programs encourage the use of alternative modes of transportation by offering free rides home if an illness or crisis occurs, if the employee is required to work unscheduled overtime, if a carpool or vanpool is unexpectedly unavailable, or if a bicycle problem arises. The Alameda County Transportation Commission offers their GRH service for all registered permanent employees who are employed within Alameda County, live within 100 miles of their worksite, and do not drive alone to work. The GRH program is offered at no cost to the employer, and employers are not required to register in order for their employees to enroll and use the program.

H. *Bicycle Parking Supply and Monitoring* – The Project buildings would include long-term on-site parking for both residents and employees, and short-term parking in the form of bike racks along the Project frontages, exceeding the City's minimum requirements for bicycle parking. Building management shall monitor the usage of these facilities and provide additional bicycle parking, if necessary.

I. *Transit Fare Subsidy (Residents)* – Provide a monthly transit benefit to each dwelling unit as required by Oakland Municipal Code, Section 17.116.105(B). For transit fare subsidy information and support, please contact AC Transit and/or BART.[1] Options may include:

- Participate in AC Transit's Easy Pass Program, where Building Management will purchase an annual Easy Pass per unit for all units in the development
- Offer to provide a regular Adult 31-Day AC Transit Pass at half the price to each unit (Pass is valued at $84.60 as of December 2020) that requests one
- Offer to provide a monthly Clipper Card contribution of about $42 to each unit that requests one

J. *Transit Fare Subsidy (Workers)* – Building management shall either offer to provide or require Project tenants to provide free or reduced cost transit in order to increase transit mode share. This analysis assumes that a subsidy of $2.00 per weekday per worker (value to worker and not cost) would be available to all site workers. Options include:

- Building management or employers can offer a monthly commuter check (or alternatively Clipper Card, which is accepted by BART, AC Transit, and other major transit providers in the Bay Area) to employees to use public transit. Note that as of 2020, IRS allows up to $270 per employee per month.

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[1] Information on AC Transit Easy Pass is provided at https://www.actransit.org/easypass.
Information on BART passes and discounts are provided at https://www.bart.gov/tickets/sales.

- Building management or employers can participate in AC Transit's EasyPass program, which enables employers to purchase annual bus passes for their employees in bulk at a deep discount. The passes allow unlimited rides on all AC Transit buses for all employees. For more information, see www.actransit.org/rider-info/easypass.

K. *Pre-tax Commuter Benefits* – Building management shall encourage Project tenants to enroll in a service (such as WageWorks) to help with pre-tax commuter savings. This strategy allows employees to deduct monthly transit passes or other amount using pre-tax dollars. This can help to lower payroll taxes and allows employees to save on transit.

L. *TDM Marketing and Resident Education* – Site management shall provide residents and employees information about transportation options. This information would also be posted at lobbies of all Project buildings and be updated as necessary. This information shall include:

- *Transit Routes* – Promote the use of transit by providing user-focused maps. These maps provide residents with wayfinding to nearby transit stops and transit-accessible destinations and are particularly useful for those without access to portable mapping applications. The Project should consider installing real-time transit information, such as TransitScreen, in a visible location to provide residents with up-to-date transit arrival and departure times.
- *Transit Fare Discounts* – Provide information about local discounted fare options offered by BART and AC Transit, including discounts for youth, elderly, persons with disabilities, and Medicare cardholders.
- *Car-Sharing* – Promote accessible car-sharing programs, such as Zipcar, GiG, and Getaround by informing residents and employees of on-site and nearby car-sharing locations and applicable membership information.
- *Ridesharing* – Provide residents and employees with phone numbers and contact information for ride sharing options including Uber, Lyft, and Oakland taxi cab services.
- *Carpooling* – Provide residents and employees with phone numbers and contact information for carpool matching services such as the Metropolitan Transportation Commission's 511 RideMatching.
- *Walking and Biking Events* – Provide information about local biking and walking events, such as Pedalfest, as events are planned.
- *Bike-share* – Educate residents and employees about nearby bike-sharing station locations and membership information.
- *Bay Area Commuter Benefits Program* – Building management shall provide information on the Bay Area Commuter Benefits Program to all building non-residential tenants. As of September 30, 2014, Bay Area employers with 50 or more full-time employees within the Bay Area Air Quality Management District (Air District) geographic boundaries are required to register and offer commuter benefits to their employees in order to comply with Air District Regulation 14, Rule 1, also known as the Bay Area Commuter Benefits Program. Employers must select one of four

Commuter Benefit options to offer their employees: a pre-tax benefit, an employer-provided subsidy, employer-provided transit, or an alternative commute benefit. (More information at 511.org/employers/commuter/overview.)

M. *On-Site TDM Coordinator* – The Project shall provide an on-site TDM coordinator responsible for implementing and managing the TDM Plan. The TDM coordinator would also be responsible for ensuring that all residents, employees, and visitors are aware of their transportation options and would serve as a point of contact for residents and employees regarding TDM programs.

Additional Operational Strategies

If the mandatory measures do not meet the required goal of 20 percent VTR, and additional vehicle trip reduction is needed, the Project, with consultation with City staff, shall consider the implementation of some or all of the following additional strategies to limit automobile use and encourage non-automotive travel.

N. *Bike/Scooter-Share Membership* – Provide tenants and residents a subsidy to offset the cost of bike-share and/or scooter membership and encourage the use of non-automobile modes.

O. *Car-share Memberships* – Provide residents with free or discounted car-share membership to offset the cost of car-sharing programs and reduce the demand for private vehicle ownership.

P. *Increased Transit Fare Subsidy* – Increase the transit fare subsidy for Project residents and employees.

Q. *Personalized Trip Planning* – In the form of in-person assistance or as a web tool, provides residents and employees with a customized menu of options for commuting. Trip planning reduces the barriers the residents and employees see to making a walk, bike, or transit trip to the site. Transit trip making tools, such as those available from Google or 511.org, could be promoted to inform residents and employees of transit options to/from work. Providing a preferred walking map routes to residents and employees living within one mile of the site and a bicycling route map to all residents and employees living within five miles of the site would be a proactive strategy to encourage those employees to use alternatives to driving.

TDM Monitoring, Evaluation, and Enforcement

Consistent with the requirements of the City's Standard Conditions of Approval, this TDM program requires regular periodic evaluation to determine if the program goal of reducing automobile trips has been satisfied and to assess the effectiveness of the implemented strategies. Beginning the first year after the development and occupancy of the first phase of the Project, Project management must prepare an annual TDM monitoring report consisting of the following:

- Summary of implemented TDM measures and their effectiveness (e.g., bicycle parking occupancy, number of transit passes issued, etc.)
- Results of Project resident and employee transportation surveys to monitor the vehicle trip generation and mode share for Project residents and employees
- Weekday AM and PM peak period and daily traffic volume counts at the garage driveways on 7th and 9th Streets

As previously discussed, the goal of the TDM program is to reduce the number of vehicle trips generated by the Project by 20 percent. This level would correspond to a total Project vehicle trip generation of no more than 282 trips during the AM peak hour and 334 in the PM peak hour at Project buildout.

Based on the results of the surveys, TDM programs shall be increased if these goals are not met. This program ensures the implementation of the mandatory TDM measures and related requirements through compliance with the Mitigation Monitoring and Reporting Program, as implemented through the Conditions of Approval adopted for the Project.

The first monitoring report must be prepared one year after full occupancy of the first phase of the Project, and subsequent monitoring reports must be prepared annually. If following the annual monitoring the TDM goals are not satisfied, additional measures shall be implemented, with consultation with City staff, until the goal is met.

If in two successive years the Project's TDM goals are not satisfied, site management shall prepare and submit for City approval a Corrective Action Plan. The Corrective Action Plan shall detail the additional TDM measures to be implemented and their expected VTR.

If, one year after the Corrective Action Plan is implemented, the required automobile mode share reduction target is still not being achieved, or if site management fails to submit a report as described above, or if the reports do not meet City requirements outlined above, the City may, in addition to its other remedies, refer the matter to the City Planning Commission for scheduling of a compliance hearing to determine whether the Project's approvals should be revoked, altered or additional conditions of approval imposed.

If in five successive years the Project is found to meet the stated TDM goal, additional surveys and monitoring shall be suspended until such a time as the City deems they are needed.

Please contact Sam Tabibnia (s.tabibnia@fehrandpeers.com or 510-835-1943) with questions or comments.

Appendix A: TDM Program Consistency with City Requirements

TDM Strategy	Required When	Required for Proposed Project?
Bus boarding bulbs or islands	• A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb	No, bus boarding bulbs or islands were not identified in the project TIR.
Bus shelter	• A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day	**Yes**, a bus shelter would be provided at the bus stop on Oak Street adjacent to Block 1 **(Measure A.5)**[1]
Concrete bus pad	• A bus stop is located along the project frontage and a concrete bus pad does not already exist	, No, concrete bus pads are already provided at the bus stop on Oak Street adjacent to Block
Curb extensions or bulb-outs	• Identified as an improvement within site analysis	**Yes**, the Project would provide concrete bulb-outs or protected intersections at the intersections along the Project frontages **(Measure A.4)**
Implementation of a corridor-level bikeway improvement	• A buffered Class 2 or Class 4 bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and • The project would generate 500 or more daily bicycle trips	**Yes**, the Project would provide Class 4 bikeways on 9th Street along the Project frontage. Although the Project would not generate 500 or more daily bicycle trips.
Implementation of a corridor-level transit capital improvement	• A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and • The project would generate 400 or more peak period transit trips	No, the project would not generate 400 or more peak period transit trips.
Installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan	• Always required	**Yes**, the Project would widen the sidewalks and upgrade the pedestrian amenities within the site and on the adjacent sidewalks.

Appendix A: TDM Program Consistency with City Requirements

TDM Strategy	Required When	Required for Proposed Project?
Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)	• When improvements are identified in the Pedestrian Master Plan (PMP) along project frontage or at an adjacent intersection	**Yes**, the Project would modify the intersection along the Project frontage to provide various improvements to the pedestrian environment **(Measure A.4)**
In-street bicycle corral	• A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages.	No, all short-term bicycle parking would be accommodated off-street or on the sidewalks along the Project frontage.
Intersection improvements, including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.	• Identified as an improvement within site analysis	**Yes**, the Project would provide improvements such as bulb-outs at intersections along the Project frontage **(Measure A.4)**
New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards	• Always required	**Yes**, the Project would upgrade the sidewalks along the Project frontage.
No monthly permits and establish minimum price floor for public parking	• If proposed parking ratio exceeds 1:1,000 sf (commercial)	**Yes**, the non-residential parking for the Project would not have monthly permit and would establish a minimum price floor. Although, off-street commercial parking would be at less than 1:1,000 sf **(Measure E)**
Parking garage is designed with retrofit capability	• Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1,000 sf (commercial)	Not applicable, the residential parking ratio would be less than 1:1.25; commercial parking would be at less than 1:1,000 sf.
Parking space reserved for car-share	• A project is located within downtown (CBD and D-LM zones). One car-share space preserved for buildings between 50 – 200 units, then one car-share space per 200 units.	**Yes**, Buildings A and C would provide car-share spaces for project residents and Building C would offer to dedicate 2 spaces in the office garage for car-share **(Measures F)**
Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	• Typically required	**Yes**, provided.

Appendix A: TDM Program Consistency with City Requirements

TDM Strategy	Required When	Required for Proposed Project?
Pedestrian crossing improvements, pedestrian-supportive signal changes, including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a "scramble" signal phase where appropriate.	• Identified as an improvement within site analysis • Identified as an improvement within operations analysis	**Yes**, the Project would provide high-visibility crosswalk markings, accessible pedestrian signals, pedestrian countdown signal heads, intersection corner bulb-outs, and leading pedestrian intervals where applicable at intersections adjacent to the Project site **(Measure A.4)**
Real-time transit information system	• A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better	**Yes**, Project would provide real-time transit information in the lobby of each building **(Measure L)**
Relocating bus stops to far side	• A project is located within 0.10 mile of any active bus stop that is currently near-side	No, no near-side bus stops are within 0.1 miles of the Project
Signal upgrades, including typical traffic lights, pedestrian signals, bike actuated signals, transit only signals	• Project size exceeds 100 residential units, 80,000 sf of retail, or 100,000 sf of commercial; and Project frontage abuts an intersection with signal infrastructure older than 15 years	**Yes**, Project would provide signal modifications at the 9th Street/ Oak Street intersection **(Measure A.2)**
Transit queue jumps	• Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better	No, None identified in the Project TIR
Trenching and placement of conduit for providing traffic signal interconnect	• Project size exceeds 100 units, 80,000 sf of retail, or 100,000 sf of commercial; and • Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and • A major transit improvement is identified within operations analysis requiring traffic signal interconnect	No, Project frontage block is not identified for signal interconnect and no major transit improvements are identified.

Appendix A: TDM Program Consistency with City Requirements

TDM Strategy	Required When	Required for Proposed Project?
Unbundled parking	• New multifamily dwelling residential facilities of ten (10) or more units, with the exception of affordable housing	**Yes**, Buildings A and D would provide unbundled parking **(Measure C)**

1. See Mandatory TDM Measures for a description of the measure.
Sources: City of Oakland Transportation Impact Review Guidelines, 2017 and City of Oakland Municipal Code, 2020